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Wise, Claude M. and Hervey, Wesley D. "The Evolution of Hawaiian Orthography," Quarterly Journal of Speech, 1952.

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FOR THE HAWAIIAN LANGUAGE

by

WESLEY DAVID HERVEY

A DISSERTATION

Presented to the Department of Speech
and the Graduate School of the University of Oregon
in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

December 1968

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TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGMENTS.	vi
LIST OF TABLES	xi
LIST OF FIGURES.	xiv
INTRODUCTION	1
CHAPTER I VOYAGES TO HAWAII BEFORE 1820	16
CHAPTER II HENRY OPUKAHAIA: MARGINAL MAN.	90
CHAPTER III THE COMING OF THE MISSIONARIES.	117
CHAPTER IV <u>PALAPALA: THE PRINTED AND</u> <u>WRITTEN WORD.</u>	211
CHAPTER V <u>NA HALE KULA: THE FIRST SCHOOLS.</u>	271
SUMMARY.	300
BIBLIOGRAPHY	305

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1 Orthography Reconstructed from Anderson's Vocabulary.	25
2 Comparative Analysis of Anderson's Vocabulary.	26
3 Comparative Analysis of the Key to Pronunciation for Vowels from "A Vocabulary of the Sandwich Islands" by Archibald Campbell.	35
4 Comparative Analysis of the Key to Pro- nunciation for Vowel Combinations from "A Vocabulary of the Sandwich Islands" by Archibald Campbell.	36
5 Comparative Analysis of the Key to Pro- nunciation for Consonants from "A Vocabulary of the Sandwich Islands" by Archibald Campbell.	39
6 An Analysis of the Orthographic Adaptations Recorded in the Log of the Vancouver Expedition.	43
7 An Analysis of the Orthographic Adaptations Recorded by Arago	49
8 An Analysis of the Fit for Vowels Based on the Vocabularies Recorded by Arago.	51
9 An Analysis of the Fit for Consonants Based on the Vocabularies Recorded by Arago	52
10 An Analysis of the Orthographic Adaptations Recorded by William Beresford	54

LIST OF TABLES Continued

<u>Table</u>		<u>Page</u>
11	An Analysis of the Fit for Vowels and Diphthongs Based on the Vocabularies Recorded by William Beresford	58
12	An Analysis of the Fit for Consonants Based on the Vocabularies Recorded by William Beresford	59
13	Summary Fit Analysis for Vowels and Diphthongs.	60
14	Summary Fit Analysis for Consonants	61
15	An Analysis of the Orthographic System Found in the Translated Work of Urey Lisiansky.	66
16	An Analysis of the Fit for Vowels Based on the Vocabulary Found in the Translated Work of Urey Lisiansky	68
17	Summary Fit Analysis for Vowels	69
18	An Analysis of the Fit for Consonants Based on the Vocabulary Found in the Translated Work of Urey Lisiansky	69
19	Comparative Summary of Orthographic Systems Studied: Vowels and Diphthongs	72
20	Comparative Summary of Orthographic Systems Studied: Consonants.	74
21	Summary of Grapheme-Phoneme Counts for Vowels and Consonants	77
22	Vowel and Consonant Phonemes of Tahitian.	136
23	Grapheme-Phoneme Relationship Reconstruction Based on the Spelling Book by Hiram Bingham	146
24	Place Names in the Hawaiian and English Orthographies	148

LIST OF TABLES Continued

<u>Table</u>		<u>Page</u>
25	Biblical Names Spelled in Hawaiian and English Orthographies	149
26	An Analysis of the Orthographic System for Vowels Proposed by Hiram Bingham.	153
27	Phonetic Analysis of Vowels Shown in Fig. 9	159
28	Unstressed Vowels	162
29	Stressed Vowels	162
30	Orthography for the Vowels of Hawaiian Advocated by William Ellis.	172
31	The Vowels of Hawaiian.	175
32	The Diphthongs of Hawaiian.	176
33	The Consonant Phonemes of Hawaiian Together with Their Associated Allophones.	177
34	An Analysis of the Orthographic System for Consonants.	178

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1 Drawing of a petroglyph taken from a photograph by Robert Milo Law.	14
2 A chart of the Pacific Ocean indicating the routes of the Spanish galleons from Mexico to the Philippines.	21
3 Frontispiece and title page from <u>Memoir of Henry Obookiah</u>	92
4 Frontispiece and title page from <u>Memoirs of Henry Obookiah</u> , 1818 edition.	93
5 Example of Henry Opukahaia's handwriting from a letter written by him from Goshen, Connecticut January 6, 1815	102
6 Title page from what is reputed to be Henry Opukahaia's grammar	110
7 A page from Henry Opukahaia's grammar containing notes on the parts of speech of Hawaiian.	111
8 Hawaiian alphabet on cloth, original in Hawaiian Mission Children's Society Library, Honolulu, Hawaii.	155
9 Page one of the first alphabet printed in Hawaii.	156
10 Page two of the first alphabet printed in Hawaii.	157
11 Page three of the first alphabet printed in Hawaii.	158

LIST OF FIGURES Continued

<u>Figure</u>	<u>Page</u>
12 A joint report by Bingham and Chamberlain July 14, 1826	194
13 Second page of a joint report signed by Bingham and Chamberlain	195
14 First page of a letter written by King Kamehameha II [Liholiho] illustrating the use of the word <u>palapala</u>	212
15 Handwritten introduction to "Select Scriptures and Materials for Spelling Book" by Hiram Bingham.	218
16 Second handwritten page from "Select Scriptures and Materials for Spelling Book" by Hiram Bingham, illustrating notes on an alphabet for Hawaiian	219
17 Title page of Hawaiian primer found in the Hawaiian Imprints Collection of Andover- Harvard Theological Library, Cambridge, Massachusetts	220
18 Table of contents for the Hawaiian primer . . .	221
19 First page of the Hawaiian primer, including the alphabet and numerals	222
20 Front page of Levi Chamberlain's <u>Hawaiian</u> <u>Spelling Book</u>	224
21 Levi Chamberlain's <u>Hawaiian Spelling Book</u> , alphabet for writing vowels, consonants and foreign words	225
22 Levi Chamberlain's <u>Hawaiian Spelling Book</u> , alphabet and pronunciation key for diphthongs and Table I, Lesson 1.	226
23 Levi Chamberlain's <u>Hawaiian Spelling Book</u> , syllables, double vowels pronounced separately, and Lesson 3--diphthongal syllables	227

LIST OF FIGURES Continued

<u>Figure</u>		<u>Page</u>
24	Levi Chamberlain's <u>Hawaiian Spelling Book</u> , Table II, words of one syllable and Table III, words of two syllables, accented on the first	228
25	Levi Chamberlain's <u>Hawaiian Spelling Book</u> , continuation of words of two syllables accented on the first	229
26	First page of <u>My First Book of Reading and Spelling</u>	231
27	<u>My First Book of Reading and Spelling</u> , illustrating the English alphabet in upper case letters.	232
28	<u>My First Book of Reading and Spelling</u> , illustrating the English alphabet in lower case letters.	233
29	<u>My First Book of Reading and Spelling</u> , illustrating the letters of the English alphabet "promiscuously" arranged	234
30	<u>My First Book of Reading and Spelling</u> , introduction of words, phrases, and sentences .	235
31	<u>My First Book of Reading and Spelling</u> , words of two letters and words, phrases, and sentences	236
32	<u>My First Book of Reading and Spelling</u> , illustrating the upper and lower case letters of the English alphabet arranged serially.	237
33	<u>A First Reader for Children</u> , printed on Oahu in the Hawaiian Islands, in 1830.	240
34	<u>A First Reader for Children</u> , illustrating the alphabet for Hawaiian in upper case letters . .	242

LIST OF FIGURES Continued

<u>Figure</u>	<u>Page</u>
35 <u>A First Reader for Children</u> , illustrating the alphabet for Hawaiian in lower case letters, with additional letters below the line for use in foreign words	243
36 <u>A First Reader for Children</u> , presenting four columns of upper and lower case letters to be used in writing Hawaiian and foreign words. The last column on the right hand side presents the names of the letters as they were taught to the Hawaiians	244
37 Page one of a booklet of penmanship lessons written by Levi Chamberlain in 1835	245
38 Geography text title page	247
39 Papa I, areas for various countries of the world	248
40 Papa II, presenting the length in miles of various rivers of the world	249
41 Title page for a geography text published in 1845	250
42 Table of contents (<u>Papa Kuhikuhi</u>) for a geography text.	251
43 Illustrations of the dress and physical appearance of people of various races and countries	252
44 <u>O Ke Kumu Leomele</u> , an elementary song book. . .	255
45 <u>Mokuna I</u> , indicating that this is the beginning of the first chapter of a book identifying the notes of the musical scale. . .	256
46 An introduction to the basic concepts of notation.	257
47 <u>Ka Haiao I</u> , containing scriptural lessons . . .	259

LIST OF FIGURES Continued

<u>Figure</u>		<u>Page</u>
48	<u>Ke Kumu Kamalii</u> , religious lessons for children.	260
49	<u>Ke Kumu Kamalii</u> , the first lesson, including the names of the days of the week as they were written for the Hawaiian pupils.	261
50	Title page of John Bunyan's <u>Pilgrims' Progress</u> , translated into Hawaiian.	262
51	Title page of a book on moral philosophy.	263
52	<u>He Ui No Ke Akua</u> , literally, questions about God	265
53	The first page of questions and answers, together with the citations from the Scriptures.	266
54	Ten Commandments printed on cloth in revised alphabet, the original being in the collection of Hawaiian Mission Children's Society Library, Honolulu, Hawaii, (no date).	267
55	The front page of a hymn book written in Hawaiian.	269
56	A hymn in Hawaiian illustrating the use of <'> to represent the glottal stop	270
57	Page five of a booklet containing the various strokes to be used in writing the letters of the alphabet	275
58	Page containing capital letters from a penmanship book written by Levi Chamberlain in 1835	276
59	Whole sentences from a booklet of penmanship lessons, written by Levi Chamberlain in 1835.	277

LIST OF FIGURES Continued

<u>Figure</u>		<u>Page</u>
60	Page 9 of a booklet of penmanship lessons written by Levi Chamberlain in 1835, illustrating the introduction of words.	278
61	Boki, letter to American Board, received April 18, 1829.	280
62	Kaahumanu's signature from a letter dated Oahu, March 15, 1825.	281
63	The school house at Honolulu drawn by G. Holmes	285
64	Address on an envelope of letter written by Kealiiahonui of Kauai, indicating that it was received in Boston April 6, 1824 and was carried on board the ship <u>Ganges</u> , commanded by Captain Coffin	289
65	Letter dated Oahu, 1823, written by Kealiihonui, who called himself the son of King Kaumualii of Kauai	290

INTRODUCTION

This historical study concerns one aspect of the culture of the Hawaiian Islands, situated in the northeast portion of Polynesia,¹ with New Zealand in the south, and Easter Island in the extreme east. It is interesting to note that these people, Polynesians, including Hawaiians, had no separate name for themselves nor were they universally aware of their homogeneity. It was not until they were discovered by others, that these natives of the many islands were classed together as Polynesians.

A Study of Cultural Diffusion

This thesis presents a case study of cultural diffusion, innovation, and change stimulated by the increased communication between the European culture and the Polynesian of Hawaii. The history of these successive cultural confrontations and the resultant changes, spans the period from James Cook, in 1779, to 1826, the year of the revision of the alphabet by the New England missionaries in Hawaii. Such a study as this is significant for its inherent interest

¹Douglas L. Oliver, The Pacific Islands (Garden City, N. J.: Doubleday & Co., Inc., 1961), p. 23.

to students of language, culture, and behavior and also for its presentation of the processes of change in a given culture as a result of the forces interacting between cultures. In the area of culture patterns and processes, the study of the adaptations of an alphabet to the writing and printing of Hawaiian may be likened to Kroeber's interest in the introduction of the cannon and the steam engine into Japan.²

The history of the peoples of the Pacific has been treated with imagination and scholarship by some of the world's most astute observers. Cultural and physical anthropologists have delved into island cultures, while social and political scientists, linguistic geographers and descriptive linguists, lexicographers and novelists have endowed the libraries across the world with their unique treasures. Museums from Salem, Massachusetts to London are treasure houses of artifacts from the many cultural branches represented by the people of this ocean vastness. The letters, journals, memorabilia, ship's logs, spelling books, and dictionaries which have served in documenting the history of an alphabet for the Hawaiians have been found in the vaults of The Hawaiian and Pacific

²Alfred L. Kroeber, Anthropology: Culture Patterns and Processes (New York: Harcourt, Brace, and World Inc., 1963), p. 220.

Collection at the University of Hawaii, the Yale University Library Manuscript Collection, the American Board of Commissioners for Foreign Missions Collection (subsequently referred to as ABC) in Houghton Library at Harvard University, the Hawaiian Imprint Collection in the Andover-Harvard Theological Library in Cambridge, the Orientalia Division of the Library of Congress, the Newberry Library in Chicago, the Special Collections Rare Book Library at the University of Oregon, the Hawaiian Mission Children's Library, and the Hawaiian Historical Society Library in Honolulu. In spite of this wealth of material, no account comparable to this work has been published concerning the history of the adaptations of an orthography for the Hawaiian language.

Since Hawaii attained statehood, there has been an increased interest expressed among scholars and laymen in the historical and cultural uniqueness of this newest member of the Union. It is hoped that this endeavor may provide a better understanding of the transition through which Hawaii passed from a Polynesian kingdom to becoming a full participant in the economic, political, and cultural life of a world power. Some of the materials by which documentation of this work might have been accomplished, have been scattered or destroyed.

Selection has been made from those sources which have

survived; and upon these will rest any theses and conclusions.

Discussion of Hypotheses

Hypothesis of Invention

The Hawaiians did not, throughout their history, invent an alphabetic system based on a phonetic relationship between the written and spoken symbols. The petroglyphs of the Hawaiians represent a "picto-semantic" form of writing, but constitute a stage on the graphic process continuum.³ So far as it is known, the Hawaiians did not manifest in any of their graphic arts, an understanding that there could be a predictable relationship between the sound (phoneme) of speech and the written symbol (grapheme).

Hypothesis of Antecedents

A complex of interrelated antecedents occurred which set the stage for the culture changes which followed. These factors of antecedence will be subjected to some of the analyses employed by workers in the field of cultural anthropology. The events included in this study are:

³David Diringer, The Alphabet (New York: Philosophical Library Inc., 1948), p. 31.

voyages to Hawaii before 1820, manifestations of cultural fatigue in the Hawaiian Kingdom before 1820, the case of Henry Opukahaia, and the work of the missionaries in adapting an orthography to Hawaiian. The impact of the written and printed language (palapala), and the institutional growth of secular and religious education as a direct result of the cultural diffusion of the alphabet will be discussed also.

Hypothesis of Missionary Influence

The missionary movement in the Sandwich Islands was the primary force abetting the cultural diffusion of an alphabet for the Hawaiians.

Hypothesis of Acceptance-Rejection

A description of the patterns of acceptance and/or rejection of the alphabet will be documented by evidence, some of which has only recently been brought to light. The complete records containing the correspondence of missionaries and leaders in Hawaii are available to the student in the ABC Collection in Harvard's Houghton Library. It is only through an attempt to ascertain the extent and quality of the acceptance-rejection manifestations, that some of the effects of the innovations introduced by the missionaries, can be evaluated in perspective.

Hypothesis of Mass Education

The first system for the mass education of the people of Hawaii was begun through missionary effort and was furthered through the introduction of an alphabetic system of writing. The high esteem in which formal education was held by the first missionary teachers had profound ramifications, as revealed in the attitudes of the leaders of Hawaiian society toward education. It was the New England concept of equal educational opportunity for all the people, irrespective of rank or race, which set the basic pattern followed in the development and expansion of the system of public education for the people of Hawaii.

Hypothesis of Acculturation Through Imprints

Through the introduction of an alphabet, some facets of the culture which would have been lost otherwise, have been preserved. The books of history and literature possessed by the Hawaiians had been "memory books" handed down from one generation to the next through the oral traditions of the people. After the introduction of an orthographic system, many of the chants, folk stories, legends, and genealogies, were written down for the first time.

The process of acculturation was promoted through the introduction of the Hawaiian to a segment of the world's

knowledge. This information had been contained in the many imprints produced by the presses of the various missions both in Hawaii and in the United States; photographs of these may be found in Chapters IV and V.

Criteria for Selection of Materials

Unpublished materials were used when these seemed to explicate and describe attempts to adapt an alphabet to Hawaiian and to document the state of the society and culture of Hawaii prior to the missionary period, and significance of "marginal man" as related to cultural diffusion, the role of the missionary in introducing an alphabet, and the reactions of the Hawaiians to these innovations. Further information from manuscripts was incorporated into the narrative when these data revealed the human element of this history.

Published materials were chosen from among the many available when these met the following criteria: the data were not available in original manuscript form; the information presented was by a recognized authority; and this work would have suffered from the sin of omission without the recognition of the contributions of such authorities. Judgment may be made from the footnotes and bibliography with reference to whether the amount and quality of evidence utilized seem appropriate and adequate to support the theses

and conclusions of this research.

While there are many unpublished materials available for study, there exists a paucity of published studies specifically concerned with the Hawaiian alphabet. The following references will serve to illustrate this point.

Allen, Riley H. "Hawaiian Pioneers in Journalism", Thirty-Seventh Annual Report of the Hawaiian Historical Society, (1928), pp. 31-40.

Andrews, Lorrin. "Remarks on the Hawaiian Dialect of the Polynesian Language", Sandwich Island Gazette, (December 24, 1836).

Elbert, Samuel H. "The Hawaiian Dictionaries Past and Future", Sixty-Second Annual Report of the Hawaiian Historical Society, (1953), pp. 5-17.

Spaulding, Thomas M. "The Adoption of the Hawaiian Alphabet", Hawaiian Historical Society Papers, 17, pp. 28-33.

Wise, Claude M. and Hervey, Wesley D. "The Evolution of the Hawaiian Orthography", Quarterly Journal of Speech, XXXVIII (October, 1952), pp. 311-325.

The subject of this study is the culture of those Polynesians, called Hawaiians, who inhabit the northeast corner of the Polynesian Triangle; specifically, the writer is dealing with the Hawaiian language, a dialect member of the Malayo-Polynesian language system. The purpose of the study is to describe the antecedents to the cultural diffusion involving the alphabet and Christianity which include voyages to Hawaii prior to 1820, the life of Henry Opukahaia, evidences of cultural fatigue, and the role of

the foreign mission schools in New England.

The cultural diffusion of principal concern here involves the adaptation of an alphabet to the writing of Hawaiian. Though the oral traditions of the language may be traced, no written alphabet had developed as an invention in the culture. Yet another aspect of this subject to come under the scrutiny of this writer involves the reactions of the commoners and alii (royalty) to the introduction of Christianity and to an alphabetic system of writing the language. Personal letters of the kings and queens of Hawaii, together with correspondence from other prominent members of the society, are presented in support of conclusions which will be introduced. Copies of many of these original sources have been included for the convenience of those who might wish to read the manuscripts from which the salient data were drawn.

The Development of Graphic Representation of Ideas

What are the phases on the process continuum through which a culture passes in developing to the point of inventing a form of alphabetic writing? The symbols with which man first experimented probably were those he could produce through the natural and basic movement of his body. Among these are the use of the vocal folds in producing sounds, and the rhythmical movement patterns of the

torso, facial muscles, arms, legs, and hands in the expressions of love, fear, and hate. The index finger was used to trace the first of all written symbols in the sand, written symbols being the representations of these movement patterns.

Oral language developed in response to the necessity for face-to-face, situation-to-situation exchange of ideas between individuals. The spoken language was most likely a combination of gestures, facial expressions, grunts, scribblings in the sand, and an infinite variety of vocalizations. Man developed into a social being as his oral communication system became sufficiently developed to handle the problems presented by the increasing complexity of organized society. Without speech he could not have developed into a social being such as he is today.

The first scribbling man did in his infancy of symbol manipulation must have been related to his most basic needs as a human being. The demands of the body for food, shelter, clothing, exercise, and sexual satisfaction constituted the prime motivating forces in the life of the primitive individual.⁴ Most likely these basic needs could have been satisfied at first without the use of written symbols. However, there must have developed a

⁴I. J. Gelb, A Study of Writing (Chicago: The University of Chicago Press, 1965), pp. 24-59.

desire to record the passing of the days, the location of game, the types of game found during the hunt, the seasons, the phases of the moon, the geographical features of the landscape, and symbols to represent the forces of nature; this list being limited only by the imagination. Inseparable from these bodily needs were the demands of the evolving intellect, encompassing the aesthetic and spiritual facets and that most fascinating of all qualities, intellectual curiosity. The Altamira cave paintings, the markings in the Egyptian pyramids, and the petroglyphs of the Polynesians give evidence of man's attempts to keep pace with both the demands of intellectual curiosity and the craving for aesthetic satisfaction.

Insofar as it can be determined, no South Sea language has attained the invention of an alphabet.⁵

In the absence of graphic symbols the memories of the past have in every case been the treasure of the memory of the present. The only record has been in the human mind; the island sagas are their own books. But in Rapanui we have a collection of wooden billets, each bearing carefully incised figures neatly ordered in rows after a modified system of boustrophedon. Dr. A. Carroll, of New South Wales, undertook to read them. It was a record of obscure events on the slope of the Andes. Dr. Carroll never explained

⁵William Churchill, The Rapanui Speech and the Peopling of Southeast Polynesia (Washington, D. C.: Carnegie Institution of Washington, 1912), p. 4.

the interpretation.⁶

Whether these inscriptions on Rapanui represent an invention of the lost society of the island or were introduced from another culture, is a moot question at the time of this writing. The men of Polynesia lived as social beings, satisfied their basic needs, but did not develop and refine their markings to the point of introducing an alphabetic invention; the Hawaiians offer a particular example of this. It must be remembered that graphic representation in its various forms may be used by a people who have not, through invention or cultural diffusion, obtained an alphabet.

Images, Symbols, and Arbitrary Signs

What forms of writing are there, and which of these can be discovered among the Polynesians? The rock drawings of Polynesia which are found among the many islands include geometric signs, conventionalized figures of men, animals, and animated objects.

Iconography is the arrangement of pictures representing familiar objects in the environment of the people. It is the most primitive stage of representing thought, giving a

⁶Ibid. Rapanui is the native name for Easter Island.

static rather than a dynamic impression.⁷

Mnemonic devices used for recalling something to be done, the location of an island in the ocean of islands, and the many parts of a chant, may take on the form of a knot in a rope, a notch in a stick, or several sticks tied together in such a way as to indicate the relative positions of stars used in navigation. Codes of tokens, used for sending important messages, were found among various peoples. With the message, a token was sent such as the sender's knife, pipe, or spear, which the receiver of the message returned to the sender.⁸

Classes of True Writing

Picture-writing as a graphic form is the most primitive stage of true writing and involves a picture or a sketch representative of the object shown. Thus a circle may represent the sun, a sketch of a man indicate a man, and so on.⁹ A simple narrative of events may be recorded in a sequence of pictures, drawings, or symbols. It is important to note that the written symbols do not represent speech-sounds; thus pictography is a semantic, not a

⁷David Diringer, op. cit., p. 25.

⁸Ibid., p. 29.

⁹Ibid., p. 31.

phonetic representation. These picture-writings are widely scattered among the many cultures studied by anthropologists. The following is an example of a petroglyph found at a site near Puako on the island of Hawaii in the Hawaiian Islands.¹⁰



Fig. 1.--Drawing of a petroglyph taken from a photograph by Robert Milo Law.

It is significant that the Hawaiians never made the step from a picto-semantic form of writing to a system in which the written symbols represent speech sounds. In the whole history of writing, this single step is most crucial if the culture is to invent alphabetic writing in which there is a certain predictable relationship or "fit",¹¹ between the written and spoken symbols.

¹⁰Robert Milo Law, architect and inveterate student of Hawaiiana, took the photograph from which this drawing was made. The date of the petroglyph is unknown.

¹¹Refers to the set of conventions of relationship between the writing system and certain phonologic structures in an associated spoken language.

Treating the introduction of an alphabet by the New England missionaries without considering at the same time the introduction of Christianity, would be to relate only part of the history. The impact of Christian teaching on the culture of the Hawaiians will be included as it relates to the introduction and acceptance of the alphabet. This chronology of events begins in 1779 and covers the span of years to 1826.

CHAPTER I

VOYAGES TO HAWAII BEFORE 1820

Overview

As it happens, the first attempts to adapt an orthographic system to Hawaiian occurred when voyagers from Europe and America encountered the problems of face-to-face communication with the natives of Hawaii. In addition, they were confronted with the task of assigning names to the more prominent topographic features discovered and recorded on the charts. The logs and vocabularies compiled during these voyages of discovery under the leadership of James Cook, Archibald Campbell, George Vancouver, M. De Freycinet, William Beresford, and Urey Lisiansky have been studied and evaluated with these principles in mind.

The Linguistic Analysis

These principles are expressed in the following questions which are considered in the linguistic analysis of the various orthographies employed by the early visitors to Hawaii.

1. What classes of words were used from the various vocabularies studied?

2. What orthographic symbols (graphemes) were used in the systems studied?

3. What significant variations and similarities were found when orthographic systems were compared?

4. What "fit" may be hypothesized for each orthography, based on an analysis of the relationships between the associated graphemes, and the phonemes recognized in contemporary Hawaiian?

5. From a study of the written records available, is it possible to reconstruct some of the salient phonological features of Hawaiian as it was spoken in the seventeen and eighteen hundreds?

6. Is it profitable to subject the orthographies, individually and collectively, to analysis employing Pike's "general phonemic goals"?¹

7. Is it profitable to subject the orthographies individually and collectively, to analysis employing Pike's categories, "general social goals", and "conflicts between phonemic and social goals"?²

The Cultural Anthropological Analysis

From the cultural anthropological point of view, there

¹Kenneth L. Pike, Phonemics (Ann Arbor: The University of Michigan Press, 1966), p. 208.

²Ibid., pp. 211-213.

are several questions which may contribute to an analysis of the data collected.³

1. In what ways did these early voyages to Hawaii constitute antecedents to change?
2. What evidence of "cultural fatigue" did the explorers included in this study report?
3. In what ways did the concept of cultural diffusion contribute to an understanding of the role played by the voyages to Hawaii before 1820?
4. How can the "marginal man" concept apply to an analysis of the agents of change?
5. Can an application of the concepts of innovation and invention to the study under consideration further the analysis of change?
6. Was evidence of resistance to diffusion found during the research involved in this project?
7. Was there evidence that acculturation took place with or without dominance and assimilation?
8. Was there evidence of voluntary and/or spontaneous acculturation?
9. Did ethnic revival play any role in this history?
10. Did change by revolution and change through

³Alfred L. Kroeber, Anthropology: Culture Patterns and Processes (New York: Harcourt-Brace, and World Inc., 1963), pp. 219-236.

organized religion figure in ~~an~~ understanding of the events dealt with in this study?

Not every one of these basic principles, framed as a question, will prove apropos to the data analysis portion of every chapter. However, they collectively constitute a format to be followed in every phase of the data collecting, analysis, and synthesis process. It was absolutely essential to the progress of this study, that each fragment of information be evaluated and integrated into the whole fabric of the unfolding history. This integrating force was supplied by the linguistic and cultural frames of reference implied by the foregoing questions.

This first chapter presents a discussion of the nature and significance of the voyages, the first wave of antecedents to the cultural diffusion involving an acceptance of the alphabet by the Hawaiians.

Spain in the Pacific

A succession of Spanish voyages are known to have been made in the Pacific Ocean, some of which touched Polynesia. These include: Felipe Gonzalez visiting Easter Island with the ships San Lorenzo and Santa Rosalia in the years 1770-1771; Domingo Boenechea (and Thomas Gayangos) who visited the Tuamotu, Raivavae, and Society groups 1772-1773, in the ships Aguila and Jupiter; Cayetano de Langora visiting

the Tuamotu and Tahiti in the Aguila in 1775-1776; and Francisco A. Maurelle touching Vavau, in the ship La Princesa during the years 1770-1781.⁴

The following illustration is a copy of a chart taken from the galleon Nostra Seigniora [sic] de Cabadonga on June 30, 1743, by Commodore George Anson indicating the habitual course taken by Spanish captains in their voyages from Mexico to the Philippines. As can be seen, these courses by-passed Hawaii.

In contrast with the Spanish, the British explorers travelled north of the equator far enough to encounter the Hawaiian chain of islands and left copiously compiled records of their voyages, together with vocabularies of the native languages encountered.

James Cook and William Anderson

In tracing the earliest attempts to write the Hawaiian language, we have at our disposal the logs of the voyages to Hawaii before the missionaries arrived in 1820. Not every log devotes enough pages descriptive of the spoken language to give a clear picture of the way in which the Hawaiians spoke their tongue before it was written. Not

⁴Peter Buck, Explorers of the Pacific (Honolulu: Bernice Pauahi Bishop Museum, Special Publication No. 43, 1953), p. 5.

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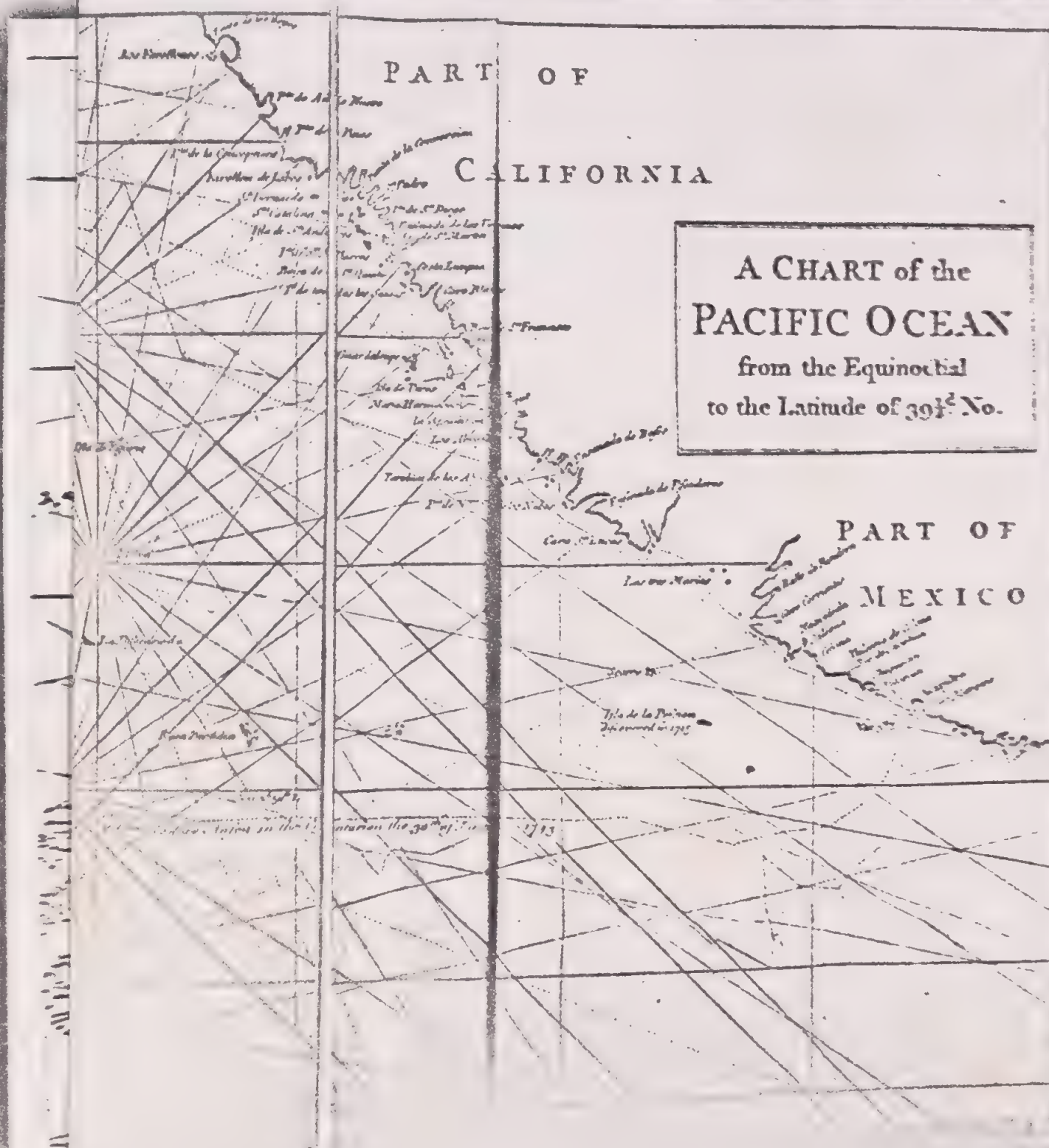


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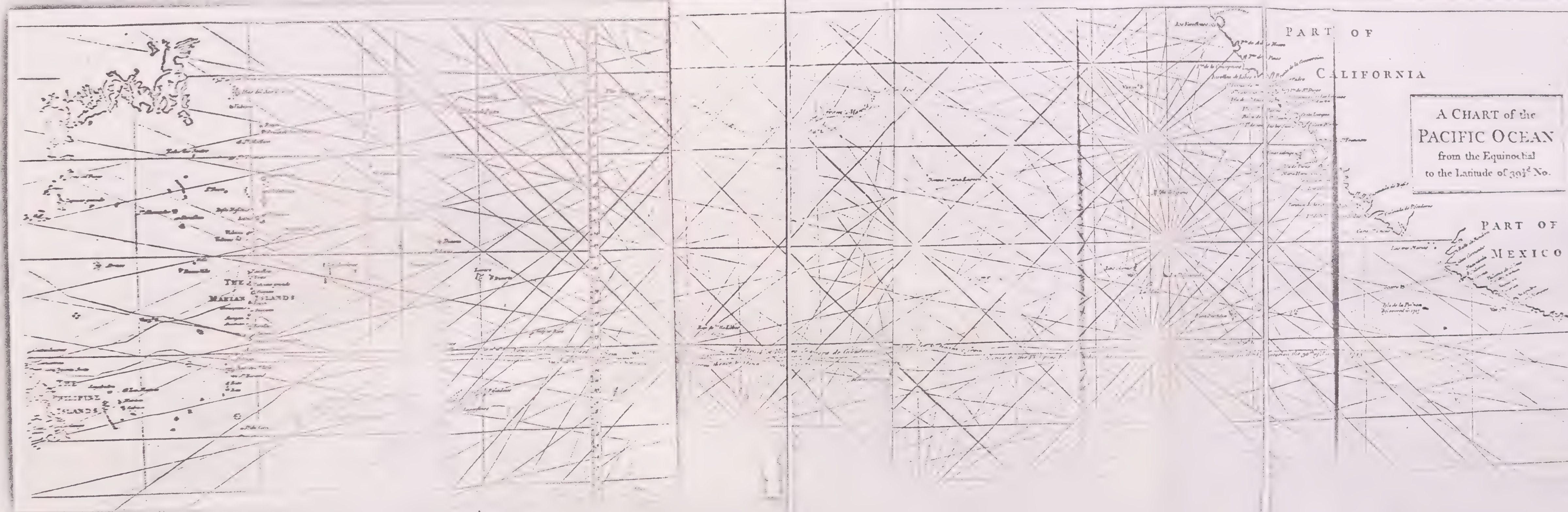


Fig. 2. A chart of the Pacific Ocean indicating the routes of the Spanish galleons from Mexico to the Philippines.*

*George Anson. A True and Impartial Journal of a Voyage to The South Seas and Round The Globe, in His Majesty's Ship the Centurion, Under the Command of Commodore George Anson (London: Printed and sold by S. Birt, in Ave-Mary-Lane; J. Newberry, without Temple-Bar; J. Collyer, in Ivy-Lane; and most other Booksellers in Great Britain, MDCCXLV), p. 384.

many ships sailing the sea lanes between the Americas and Asia had a recorder on board who could identify the basic sound structure of a strangelanguage, write it down in his own familiar orthography and bequeath the endeavor, together with a meticulously worked out vocabulary of most commonly used words, to posterity.

In addition to these most obvious factors, it is interesting that the voyages for the purpose of scientific discovery have left the most data behind for use in piecing together this history. It was on board the ships of such comparatively well-financed expeditions that one was likely to find men of letters, and men who had sufficient leisure apart from their narrowly circumscribed duties of navigating and sailing; to engage in the field work, study and writing, prerequisite to the compiling of a vocabulary. Such a set of circumstances as these attended the expedition under the command of James Cook. The complete title of the journal prepared by William Anderson, surgeon on the Resolution, explains the purpose of the voyages undertaken, certainly the most extensive exploration of the Pacific Ocean area attempted up to that period.

Voyage To The Pacific Ocean Undertaken By
The Command Of His Majesty For Making Discoveries
In The Northern Hemisphere To Determine: The
Position and Extent Of The West Side Of North
America; Its Distance From Asia; And The
Practicability Of A Northern Passage To Europe-
Performed Under The Direction Of Captains James
Cook, Clerke And Gore, In His Majesty's Ships

The Resolution And Discovery In The Years 1776, 1777, 1778, 1779, and 1780.⁵

His Brittanic Majesty's sloop Resolution, 452 tons, under the command of James Cook, arrived in Hawaii January 18, 1778, and departed February 2, 1778. The sloop Discovery, 300 tons, under the command of Charles Clerke, accompanied the Resolution. Cook is given credit for discovering the Hawaiian Islands on his third voyage and named them the Sandwich Islands in honor of his patron, the Earl of Sandwich.

The second visit to Hawaii was on November 26, 1778. The expedition sailed from the Hawaiian Islands February 4, 1779, but a broken mast on the Resolution forced both vessels to return to Kealahou, Hawaii February 11, 1779. Captain Cook was subsequently killed on February 14. Both vessels then left the island of Hawaii March 13, 1779, Captain Clerke in command of the Resolution and Captain Gore in command of the Discovery. Captain Clerke died of consumption, after which Captain Gore commanded the Resolution and King the Discovery.⁶ Of interest to those

⁵James Cook, Voyage to the Pacific Ocean 1784, Vol. 3 (London: Published by order of the lords commissioners of the Admiralty. Printed by H. Hughs, for G. Nicol, 1784).

⁶[Bernice Judd], Voyages to Hawaii Before 1860: A Study Based on Historical Narrative in the Library of the Hawaiian Mission Children's Society (Honolulu: Hawaiian Mission Children's Society, 1929).

who wish to follow the history of this singularly unique voyage of discovery, is the list of principal officers appointed to the ships.

Resolution

John Gore, James King, and John Williamson, lieutenants.

William Bligh, master.

William Anderson, surgeon.

Molesworth Philips, lieutenant, royal marines.

Discovery

James Burney, John Rickman, lieutenants.

Thomas Edgar, master.

John Law, surgeon.

One of the vocabularies left to us in the records of the third voyage can be found on 549 Appendix, No. V, titled: "Vocabulary of the Language of Atooi one of the Sandwich Islands, January, 1778".⁷ Scholars are indebted to William Anderson for this vocabulary. Anderson did not work out a pronunciation key; however, it has been possible to attempt a reconstruction of the "fit" prevalent at the time that Anderson was asking questions of the native

⁷William Anderson, "Vocabulary of the Language of Atooi one of the Sandwich Islands, January, 1778," in Voyage to the Pacific, James Cook, op. cit., Vol. 3, pp. 549-553.

Hawaiians. A study of the words in the vocabulary, helped this writer to establish the orthographic system used by Anderson to record the spoken words. From what is known of the phonology of present-day Hawaiian, together with what can be inferred from descriptions of the spoken language prior to the adaptation of an alphabet, it is possible to make an educated guess concerning what speech sounds were associated with which graphemes.

TABLE 1

ORTHOGRAPHY RECONSTRUCTED FROM ANDERSON'S VOCABULARY*

Vowel Graphemes	Vowel Phonemes (IPA)	Consonant Graphemes	Consonant Phonemes (IPA)
a	a	p	p
e	e	b	b
i	i	d	d
o	o	f	f
u	u	v	
oo	u	h	h
ee	i	t	t
aa	a-a	w	w
oe	o-e	m	m
ou	o-u	n	n
oi	o-i	r	r
eu	e-u	tt	t
ai	a-i	pp	p
		wh	w
		y**	a-i or aI

*Ibid.

**The consonant grapheme <y> may have been pronounced [a-i] or [aI].

The following symbols will be used: <> for graphemes, [] for phonetic transcription, and || for phonemes.

TABLE 2

COMPARATIVE ANALYSIS OF ANDERSON'S VOCABULARY

Kauai	English Glossary	Pukui and Elbert	Comments
<u>mahaia</u>	where	<u>mahea</u> <u>where</u>	In Kauai orthography, <ai> is pronounced [a-i], while in the manner of Pukui and Elbert, mahea is pronounced [mahea]. Pukui & Elbert <u>indicate</u> that there is a tendency for [a-i] to change to [e-i] in "fast pronunciations". If Anderson listened to the articulation of the word in isolation, he might well have heard [maha-ia] and chosen the orthographic symbols to coincide with what he heard.
<u>aorre,</u> or <u>aeo</u>	no	<u>aole,</u> <u>aoe</u> no, not not.	No symbolization for the glottal stop used by Anderson. There is the question as to whether the Hawaiian speaker was saying [aole] or [aore]. It is obvious here that Anderson thought that he heard the sound [r].
<u>he oho</u>	the hair	oho <u>hair of</u> the head	Three other meanings not included by Anderson, are recorded by Pukui & Elbert.
<u>e poo^a</u>	head	<u>e poo</u>	Five other meanings are listed in the Pukui & Elbert Dictionary. "E" is a particle marking imperative exhortative mood. The glottal stop is indicated in the Pukui & Elbert listing but not by Anderson.
^a Anderson's spelling would indicate a pronunciation of [e-pu], while Pukui and Elbert record [e-poʔo].			

TABLE 2 -- Continued

Kauai	English Glossary	Pukui and Elbert	Comments
<u>papaiee</u>	the ear	pepeiao, <u>e eiao</u>	Anderson listed both words as one, whereas <u>pepeiao</u> means ear and <u>e eiao</u> is listed as a rare form of the same noun by Pukui & Elbert. The Anderson orthography would lead one to infer that the words " <u>papaiee aoo</u> " might have been articulated [<u>papa</u> I-ia-u]. When the Pukui and Elbert rendition of the word as <u>pepeiao</u> is considered, one may conclude that a change from [a-i] to [e-i] or from the "careful pronunciation" to fast pronunciation may account for the differences between the Anderson orthographic rendition and that by Pukui and Elbert.
<u>heraee</u>	the forehead	lae <u>forehead</u> , brow	Nothing resembling " <u>heraee</u> " was listed in Pukui & Elbert. " <u>He</u> " was most likely the demonstrative used at the beginning of a phrase. Anderson heard the " <u>raee</u> " portion of " <u>heraee</u> " as [ra-i]. Anderson had the same difficulty that King Liholiho had in determining whether he had heard an [l] sound or an [r] sound.
<u>matta</u>	the eye	<u>maka</u> eye	Here the English conception of the double consonant orthographic symbol is manifested. The confusion as to whether the Hawaiian speakers were saying [-t-] or [-k-] may be inferred from the spelling of " <u>maka</u> " as " <u>matta</u> " by Anderson. Perhaps the Hawaiians themselves did

TABLE 2 -- Continued

Kauai	English Glossary	Pukui and Elbert	Comments
			not make the distinction. It is just possible that a shift from [t] to [k] did not constitute a phonemic change. That is, it did not constitute a change that made a difference in the meaning of the message.
<u>pappareenga</u>	the cheek	<u>papalina</u> cheek	Here again is the orthographic ritual of the double consonant grapheme and the confusion involving the sounds [-l-] and [-r-]. The spelling symbols <ng> could indicate that Anderson thought he had heard [-inga] or possibly [-iŋga].
<u>haieea</u>	fish	<u>i</u> a fish or any marine animal.	Again there is the possibility of assimilation from [a-i] to [e-i] occurring from spelling pronunciation to fluent speech. <u>Haieea</u> , instead of being a one word response, is a phrase of two words. Listening to fluent speech it would seem like a single spoken phrase of four syllables. " <u>He</u> " is the demonstrative used at the beginning of a phrase.
			Since this pattern is consistent throughout the vocabulary, it would substantiate the writer's conviction that the vocabulary was obtained from personal interviews.

TABLE 2 -- Continued

Kauai	English Glossary		Pukui and Elbert		Comments
<u>eee heu</u>	the nose	ihu nose			The initial <e> here may have been the interpretation of "he" in fluent speech. The aspirant [h] may not have been heard. The articulation of [he-u] could have been confused with [hu].
<u>oome</u> <u>oome</u>	the beard	umi umi beard			In the Kauai orthography, <oo> may have been pronounced [u], while <e> in oome may have been heard as either [e] or [i].
<u>haire</u>	to go	hele to go, come			Haire may have been heard by Anderson as [ha-i-re] because the word was pronounced in isolation. This follows the concept of the shift from [a-i] to [e-i] mentioned by Pukui and Elbert, and cited above.
<u>aee</u>	the neck	a-i neck			Anderson may have heard [a-i], whereas Pukui and Elbert indicate that today it would be articulated [ʔaʔi].
<u>ooma</u> <u>ooma</u>	the breast	umauma chest, breast			The orthography chosen by Anderson approximates very closely the revised alphabet used by Pukui and Elbert. Anderson used <oo> in association with the sound [u].

TABLE 2 -- Continued

Kauai	English Glossary	Pukui and Elbert	Comments
<u>heoo</u>	the nipple	hiu to throw or fling violently hi'u tail of a fish heo knob of any kind heu down or fine hair	It may be seen from the evidence that there is ample opportunity for confusion here. "Heoo" pronounced [heu] corresponds most closely to "heu", [heu] is listed by Pukui and Elbert. This phonological similarity is not repeated where meaning is concerned. "Heo" [heo] corresponds most closely to the meaning recorded by Anderson.
<u>peeto</u>	the navel	piko navel or the navel string	It is assumed that Anderson heard [pito], in contrast to [piko], commonly heard today.
<u>hoojaa</u>	the thigh	uha inner side of the thigh	Anderson's "hoojaa" may be transcribed [huha]. The aspirant <h> may have been recorded if the sound u , initiating the word had been said loudly, that a glottal stop resulted. The use of <aa> may have been an attempt to record a degree of lengthening of a .

TABLE 2 -- Continued

Kauai	English Glossary	Pukui and Elbert	Comments
<u>he wawy</u>	the leg	he wawae a leg	It is interesting to note that the <y> spelling is used to designate both [a-i] and [a-e] articulation. "He" is the demonstrative at the beginning of the phrase, "a leg." Anderson translated " <u>He</u> " as "the" instead of "a".
<u>areea</u>	wait a little	alia wait	There is a recurring problem whether the <l> or the <r> orthographic symbol properly recorded the common pronunciation of the speakers of the language.
<u>myao</u>	finger & toe nails	mai'ao human nail	The <y> may have been chosen to represent articulation resembling [aI] or [a-i]. Anderson did not indicate the glottal stop.
<u>eeno</u>	bad	'ino bad	The <ee> spelling used by Anderson to represent the [i] articulation was common practice.
<u>hooTEE</u> <u>hooTEE</u>	to pluck up or out	hukihuki to pull or draw fre- quently together	Following Anderson's orthography, the pronunciation might be [huti-huti], while after Pukui and Elbert <u>hukihuki</u> would be pronounced [hukihuki].

There were any number of variables in operation when the earliest vocabularies were compiled, any one of which, or any combination of which, may have influenced the orthographic adaptations recorded by the various interpreters of the Hawaiian language. Anderson's monitoring of Hawaiian speech may have been the first of these variables. William Anderson was listening to spoken Hawaiian, pre-conditioned by his experience with the orthography and phonology of the English of the British Isles. His failure to record the glottal stop as a phonemic element of the language, his use of the consonant clusters <tt>, <rr>, <nn>, <pp>, and <ng>; and his occasional inability to recognize particles and clitics as components within the spoken responses of the Hawaiian informants are all explicable when the situation is evaluated in the light of present knowledge.

The glottal stop was not a phonemic element in the dialect of English with which Anderson was familiar; hence it was not recorded by him as a phoneme. He was one of many pioneers attempting to adapt an orthographic system to Hawaiian, who did not identify the importance of the glottal stop.

The use of consonant clusters may have been an unconscious transfer from English orthography. In the case of the Hawaiian word maka (eye), Anderson wrote "matta." Disregarding the use of <t> in place of <k>, this word

illustrates the use of the consonant cluster.

Anderson's problem in recognizing clitics and particles as components within the spoken responses of the various informants, may be illustrated from his recording of "evy" (fresh water), in contrast to the listing by Pukui and Elbert of "wai" (water). The <e> in "evy" may be the particle and clitic marking the vocative.

Articulation differences may be accounted for in at least two ways: different dialects of Hawaiian may have existed from one district to another; and Anderson may have recorded words from carefully spoken answers to direct questions. In the Kauai Vocabulary the grapheme <ai> would be pronounced [a-i], while in the manner of Pukui and Elbert mahea would be pronounced [mahea]. Pukui and Elbert indicate that there is a tendency for [a-i] to change to [e-i] in "fast pronunciations". If Anderson had listened to the articulation of the word in isolation, he might well have heard [maha-ia] and chosen the orthographic symbols to coincide with the more careful pronunciation.

Archibald Campbell

Archibald Campbell published "Vocabulary of the Sandwich Islands" with a key to the pronunciation of the words

contained in the lists.⁸ His introduction reads, "in pronouncing the words as [spelled] in the vocabulary, all the letters must be sounded with the exception; after mentioned."⁹ Tables 3, 4, and 5 summarize the information contained in this key, the spelling of the words in the vocabulary, and a comparison with the work of Pukui and Elbert.¹⁰

A discussion of the relationship between the orthographic symbol, the key word, and the known phoneme of spoken Hawaiian today, seems in order. Campbell indicated that <a> "has always the sound of the initial and final letter in Arabia". It could be inferred from this that <a> should be pronounced either [a] or [ə], depending on the stress patterns involved; that Campbell intended to give this impression is doubtful.

If <e> were pronounced as the first <e> in "eloquence", then it would be pronounced as |ε|. On the other hand, if <e> were pronounced as in the second <e> in

⁸Archibald Campbell, Voyage Around the World (Edinburgh, Scotland: Printed for Archibald Constable and Company; and Longman, Hurst, Orme, and Brown, London; and John Smith and Son, Glasgow, 1816), pp. 227-228.

⁹This explanation appeared in the introduction to the "Vocabulary of the Language of the Sandwich Islands" (Archibald Campbell, op. cit., p. 227.)

¹⁰Mary Kawena Pukui and Samuel H. Elbert, Hawaiian-English Dictionary (Honolulu: University of Hawaii Press, 1961).

TABLE 3

COMPARATIVE ANALYSIS OF THE KEY TO PRONUNCIATION FOR VOWELS FROM A
"VOCABULARY OF THE SANDWICH ISLANDS" BY ARCHIBALD CAMPBELL^a

Orthography (Graphemes)	Phonic Description	From Campbell	
		Hawaiian Key Words and English Glossary	Key Words from Pukui and Elbert
a	has always the sound of the initial and final letter in the word Arabia.	maro girdle for men	malo male's loincloth
e	as in the word eloquence or the final y in plenty	ahee-ahee evening	ahiahi evening
ee	as in keep	tootooe a nut	kukui candle nut tree
I	as in indolence	ivee nine	iwa nine
o	as in the word form	po head	po'o head
oo	as in boot, good	pooka hole	puka hole
u	as in the word but	makunna present or gift	makana gift

^aCampbell, op. cit.

TABLE 4

COMPARATIVE ANALYSIS OF THE KEY TO PRONUNCIATION FOR VOWEL COMBINATIONS FROM
A "VOCABULARY OF THE SANDWICH ISLANDS" BY ARCHIBALD CAMPBELL

Orthography (Graphemes)	From Campbell		Hawaiian	
	Phonic Description		Key Words and English Glossary	Key Words from Pukui and Elbert
ai	as the vowel sounds in tye, fly, or the <i> in diameter. Called a diphthong		mai here	mai - Direction towards the speaker. Come, come here, (used without particles).
ei	as in the word height, diphthong		heire go	hele To go, come, walk.
oi	as in the word oil, diphthong		hoi-hoi te poa dusk, or twilight	molehu dusk
ow	as in the word cow		kow	kou (O-class) kau (a-class) your
oe	you oe are dissyllables		oe you	oi you

"eloquence" it might be pronounced as |ə|. If pronounced as the final <y> in plenty, the pronunciation could be [I⁴].

The grapheme <ee> is listed as being pronounced [i] as in "keep". This orthographic form is used consistently throughout the vocabulary. If <i> were pronounced as in "indolence" it could be described phonetically as being articulated [I]. The <o> as in "form", could be associated with |ɔ|.

The <u> grapheme could have been pronounced by Campbell as [ʌ] in "but", while <oo> could have been pronounced either [u] or [ʊ], if the key words listed in the descriptive text are considered.

Since "tye" was chosen by Campbell as a key word for the pronunciation of <ai>, one might infer that the articulation in this case would approximate the diphthong [aI]. It is not uncommon to have people listening to spoken Hawaiian confuse [aI] with [a-i], and pronounce Hawaiian place names using the [aI] diphthong.

The grapheme <ei>, pronounced as in "height" would approximate the diphthong [aI], as in the word "high". Campbell lists the word "meitei" (good); current spelling of the word would be "maika'i", meaning good.

From the description of the pronunciation of <oi> as in the word "oil", Campbell's explanation indicated that

the articulation approximated [ʔI].

If the orthographic symbols <ow> were pronounced as in the word "cow", the pronunciation would be [aʊ]. It is likely that this was the nearest approximation the orthographer could make to [a-u] or [o-u].

Table 5 will summarize the consonant graphemes used in the vocabulary of Archibald Campbell, together with his descriptive narrative and a notation from the work of Pukui and Elbert.

The orthographic symbols utilized in the vocabulary of Archibald Campbell are listed in the left-hand column. A number of the symbols no longer in use in the writing of Hawaiian are <ɾ>, , <v>, <wh>, <t>, <y>, <rr>, <tt>, <ck>, <nn>, and <mm>. The substitutions of and <p>, <t> and <k>, <r> and <l>, and <v> and <w> are clear from a study of Tables 3, 4, and 5. Many of these confusions concerning the use of orthographic symbols to represent the phonemes of spoken Hawaiian persisted down to missionary times.

Several explanations may be offered for the use of digraphs in the orthographic notation recorded by Campbell. In this orthographic system, each digraph is associated with one phoneme; the <wh> with |w| and the <ck> with |k|. It would seem that <wh> and <w> were both used in association with the phoneme |w|. The <ck> digraph may have

TABLE 5

COMPARATIVE ANALYSIS OF THE KEY TO PRONUNCIATION FOR CONSONANTS FROM A
"VOCABULARY OF THE SANDWICH ISLANDS" BY ARCHIBALD CAMPBELL

Orthography (Graphemes)	Phonic Description	From Campbell	
		Hawaiian Key Words and English Glossary	Key Words From Pukui and Elbert
h	aspirated	harre house	hale house
k	k and t frequently substituted	keike waheina girl	kaikamahine girl
t	t and k frequently substituted	tai ocean	kai sea, sea water
l	l and r frequently substituted	leho-lohe lips	leholohe lip
r	r and l frequently substituted	harre house	hale house
b	b and p frequently substituted	boa hog	pua'a hog
p	p and b frequently substituted	poa hog	pua'a hog
w	w as in <u>wai</u>	wai water	wai water
v	v as in <u>awa</u>	ava ten pounder fish	awa ten pounder fish (Elops hawaiiensis), a particular kind of fish

TABLE 5 Continued

<u>From Campbell</u>		<u>Hawaiian</u>	
<u>Orthography</u> (Graphemes)	<u>Phonic</u> <u>Description</u>	<u>Key Words and</u> <u>English Glossary</u>	<u>Key Words From</u> <u>Pukui and Elbert</u>
wh	owhyte spelling seldom used in the orthography of the vocabulary	owhyte what	'o wai interrogative "what"
y	no description	mayoree helmet	mahi ^{ole} helmet
rr	no description	purra-purra writing, printing	palapala writing
tt	no description	matte-matte kill	make kill
ck	no description	mackeroa shoot	ma'aalaioa shoot with sling
nn	no description	tannee husband	kane husband
mm	no description	mumnee pearl	momi pearl

been used interchangeably with <k> to represent the phoneme |k|, although another explanation of the use of <ck> might be that this was a way of recording the glottal stop as heard in ma'aalaioa (shoot with sling). This is a matter of pure speculation and all that is certain is that Campbell was influenced by the conventions of the orthographic system with which he was most familiar and that these same conventions were introduced into the system used for writing Hawaiian.

The digraph <tt> may be explained as follows. If a person pronounced "matte" as a two syllable word with the first syllable [mat'] articulated with an implosive [t] and the second syllable [-te] articulated with the explosive phase of the same phoneme, Campbell may have supposed that a double symbol would be necessary in representing the implosive-explosive phases of the articulation of the phoneme |t|.

The digraphs <rr> and <nn> may have been included in an attempt to indicate lengthening as in the case of [pur·a] and [tan·e]. This may account for the use of <mm> in the word "mumme", found in the Campbell vocabulary.

The log of the expedition of George Vancouver is the next one available for analysis.

George Vancouver

His Britannic Majesty's sloop Discovery under the command of George Vancouver first arrived in the Hawaiian Islands March 2, 1792, accompanied by the tender Chatham under the command of Captain Puget. Discovery was a three hundred and fifty ton sloop-of-war.¹¹

A select list of words from the vocabulary available through a careful study of the log, is presented as the basis for making certain inferences concerning the orthographic adaptations represented therein. The following table will present the key words found in the narrative, suggestions concerning the associated phonemes, and a translation of the words according to Pukui and Elbert.¹²

¹¹George Vancouver, A Voyage of Discovery to the North Pacific Ocean and Round The World Undertaken by His Majesty's Command, Principally with a View to Ascertain the Existence of Any Navigable Communication Between the North Pacific and North Atlantic Oceans, and Performed in the Years 1790-95, In The Discovery Sloop-Of-War and Armed Tender Chatham, Under the Command of Captain George Vancouver (London: Printed for G. G. and J. Robinson, Paternoster-Row; and J. Edwards, Pall-Mall, 1798).

¹²Pukui and Elbert, op. cit.

TABLE 6

ANALYSIS OF THE ORTHOGRAPHIC ADAPTATIONS RECORDED IN THE
LOG OF THE VANCOUVER EXPEDITION

Orthography	From Vancouver Key Word	Suggested by Hervey: Phonemes	Key Words from Pukui and Elbert
a	Karakakooa	a	Kealakekua
aa	Koaarra	a·	Kohala
e	Whymea	e	Waimea
e ee	Onehow	i	Ni'ihau
o	Koaarra	o	Kohala
oo	Woahoo	u	Oahu
ai	Ranai	a-i aI	Lana'i
ah	arrowhah	a	aloha love
ea	Toeaigh	a-i aI	Kawaihae
ei	Raheina	e-i eI	Lahaina
ie	mytie	a-i aI	maika'i good
igh	Toeaigh	a-i aI	Kawaihae
oi	Morotoi	o-i oI	Moloka'i
ow	Onehow	a-u au	Ni'ihau

TABLE 6 Continued

Orthography	From Vancouver Key Word	Suggested by Hervey; Phonemes	Key Words from Pukui and Elbert
b	taboo	b	kapu taboo
c	Crymakoo	k	Kalanimoku ^a
h	Woahoo	n	Oahu
k	Karakakooa	k	Kealakekua
m	mowna	m	mauna mountain
n nn	Rannai	n	Lana'i
r rr	Ranai	r	Lana'i
t tt	Attowai	t	Kaua'i
w	Woahu	w	Oahu
wh	Whyteete	w	Waikiki
y	Whyteete	a-i aI	Waikiki
y	poory	I	pule prayer

^aRalph S. Kuykendall. The Hawaiian Kingdom (Honolulu: The University of Hawaii Press, 1947), p. 61.

The orthography column illustrates the orthographic adaptations manifested in the spelling of Hawaiian words extracted from the text of the log of this voyage, while the key words were selected from the context of the published account of the expedition as being illustrative of typical spelling. The phoneme column displays a reconstruction of the phonological patterns associated with the orthographic symbols. This reconstruction does not attempt to suggest how the native Hawaiian speaker was pronouncing the key words, but rather how the word would be pronounced if the orthographic cues supplied to us are followed. From these data one may infer how the British recorder of the vocabulary may have interpreted the Hawaiian speech which he heard. The right-hand column contains the currently accepted spelling of the Hawaiian words as found in the Hawaiian-English Dictionary of Kawena Pukui and Samuel H. Elbert.¹³

In the Vancouver log, two orthographic symbols were used to represent the same phoneme. An example of this would be the <ah>, <aa>, and <a> spelling for the phoneme |a|. The use of double letter symbols to represent single phonemes may be found in the following examples: <ee> associated with |i|, <tt> with |t|, <rr> with |r|, <nn>

¹³Pukui and Elbert, op. cit.

with |n|, and <oo> with |u|. The substitutions involving the use of <t> and <k>, <r> and <l>, are apparent. In contrast to this tendency, is the use of the same orthographic symbol to represent different phonemes. The grapheme <e> used in association with the phoneme |e| in Whymea and |i| in Onehow illustrate this point.

There is one instance found by this writer which might be interpreted as evidence that the original recorder was attempting to represent the glottal stop through the use of orthographic symbols. In the case of the word "maitie", as written in the Vancouver log, the <i> could be pronounced [aI] while the <e> could be pronounced either as [i] or [e]. If one were to pronounce <ie> as [aI-i], it would not be unlikely that a glottal stop |ʔ| would be used as in [aIʔi]. Aside from this inferential treatment of the matter, no symbol to represent the glottal stop appears in the orthographic system under discussion.

Arago and Freycinet

The voyage around the world in the corvettes Uranie and Physicienne was undertaken by order of the French government.¹⁴ This was one of a series of scientific expeditions

¹⁴J. Arago, Narrative Of A Voyage Round The World In The Uranie And Physicienne Corvettes Commanded by Captain Freycinet, During The Years 1817, 1819, And 1820; On A Scientific Expedition Undertaken by Order Of The French

engaged in by the major world powers over a period of years. We are indebted to Arago for copious references concerning the language of the Sandwich Islanders in letters written to a friend in Paris. This voyage of scientific discovery extended over the years 1817, 1818, 1819, and 1820. Arago was the draftsman to the expedition under the command of DeFreycinet. In introducing the vocabulary under scrutiny, the prefatory remarks found in the appendix of Arago's work may be interesting and instructive with respect to the use of <t> and <k>, <l> and <r>.

By this little vocabulary, it will be seen, that the language of the Sandwich Islanders is principally formed of compound words; but it is as well to observe that nearly all the words are terminated by a slight aspiration, which I might have represented by an h; and that all the inhabitants of this archipelago change at their pleasure k into t, or t into k; as well as the r into l, and the l into r. I observed that all the songs which they recited were spoken slower than their other discourse.¹⁵

The reference to the songs recited by the natives, may have alluded to the chanting which was so much a part of the oral tradition of the Polynesians. Of particular interest is Arago's comment in the introduction to the vocabulary relative to the problems he had encountered in

Government. In A Series Of Letters To A Friend by J. Arago, Draftsman To the Expedition (London: Treuttel and Wurtz, Treuttel, Jun, And Richter, 30, Soho-Square, 1823).

¹⁵Ibid., "Appendix No. 1, Vocabularies," p. 294.

writing Hawaiian words in French orthography.

The French orthography is preserved in these vocabularies. There are, however, some sounds in the languages of the savages, which our alphabet does not precisely give; and to signify them, I have used those letters which seem most nearly to give the correct idea of them. The vocabularies of the English navigators are so very imperfect, that even with their help, we often found it impossible to make ourselves understood. This probably arises from the different manner of pronunciation which exists in the two nations. 'Owhyhee', 'Woahoo', and 'Mowhee', for example, thus written by the English, are to be pronounced here as in England, 'Ohahi', 'houahou', and 'Mohoui'. Every difficulty of this kind is avoided in these vocabularies; and the only means of people making themselves understood, is to pronounce all the letters as here written.¹⁶

The following table (Table 7) presents an analysis of selected orthographic adaptations of French orthography to written Hawaiian, as recorded by Arago using native speakers of Hawaiian as informants.

The table implies that the vowel phonemes heard by Arago may have been |a|, |i|, |e|, |u|, |o|, i.e., of the five currently recognized vowel phonemes of spoken Hawaiian, Arago identified five of them. Table 8 demonstrates that Arago utilized ten orthographic symbols to represent the five phonemes.

Arago stated that nearly all of the words in Hawaiian are terminated by a slight aspiration, which he represented in his orthography by an <h>. Such words as "Kaah",

¹⁶Ibid., p. 269.

TABLE 7

ANALYSIS OF THE ORTHOGRAPHIC ADAPTATIONS RECORDED BY ARAGO

Orthography	From Arago Key Word	English Glossary	Phonemes Suggested by Hervey	Key Words from Pukui and Elbert
a	a-ha	four	a	'aha
aa	aa	cord which fastens canoe	a-a	no word
ah	eeiah	tomato or love-apple	a	no word
e	Tammeamah	Kamehameha	e	Kamehameha
ee	Mowhee	Maui	i	Maui
i	ie'	helmet of warrior	i	mahiole
o	noho	gecko, lizard	o	mo'o
oo	noo	bench	u	No word
ou	opou	belly	u	'opū
ou	Riouriou	Rihoriho	o	Liholiho
ow	Mowna Kah	Mauna Kea	a-u	Mauna Kea
ae	Taurae	a barren isle	a-e	No word
ai	morai	temple	a-i	morai
oe	poe	taro	o-e	poi
b	ebou	bailer	b	no word
c	pico	navel	k	piko
h	Woahoo	Oahu	h	Oahu
l	Lahaina	Lahaina	l	Lahaina
m	maka	eye	m	maka

TABLE 7 Continued

Orthography	<u>From Arago</u>		English Glossary	Phonemes Suggested by Hervey	Key Words from Pukui and Elbert
	Key Word	pane-pane			
n		pane-pane	sexual connection	n	panipani
p	po-ho		head	p	No word
r	Mowna Roa		Mau na Loa	r	Mauna Loa
s	kasue		heel	s	ku'eku'e
t	touno		benches for rowers	t	No word
v	ivirei		collarbone	v u	iwilei
w	Woahoo		Oahu	w	Oahu
y	Owhyhee		Hawaii	a-i	Hawaii

TABLE 8

AN ANALYSIS OF THE "FIT" FOR VOWELS BASED ON THE
VOCABULARIES RECORDED BY ARAGO

Arbitrary Rank		Arbitrary Rank	
Number Assigned Orthographic Symbols	Orthographic Symbols Used by Arago	Associated Phoneme	Number Assigned Phoneme
1	i	<i>i</i>	1
2	ee	<i>i</i>	
3	e e	<i>e</i>	2
4	o	<i>o</i>	3
5	ou	<i>o</i>	
6	oo	<i>u</i>	4
7	ou	<i>u</i>	
8	a	<i>a</i>	5
9	ah	<i>a</i>	

"Tammeamah", and "Eeiah", illustrate this tendency to use the <ah> orthographic combination to denote the [a] sound being followed by the aspirant quality mentioned by Arago. The word "poé" as in the Arago vocabulary illustrates the French practice of indicating the syllable receiving the major stress.

The following table (Table 9) presents an analysis of the "fit" based on the vocabularies recorded by Arago.

In contrast to the orthographic system for vowels, the consonant "fit" indicates a one-to-one relationship.

TABLE 9

AN ANALYSIS OF THE "FIT" FOR CONSONANTS BASED ON THE
VOCABULARIES RECORDED BY ARAGO - CONSONANTS

Orthographic Symbol Count	Orthographic Symbols Used By Arago	Associated Phoneme	Phoneme Count
1	b	b	1
2	c	k	2
3	h	h	3
4	l	l	4
5	m	m	5
6	n	n	6
7	p	p	7
8	r	r	8
9	s	s	9
10	t	t	10
11	v	v	11
12	w	w	12
13	y	aI a-i	13

George Dixon and William Beresford

The Queen Charlotte under the command of George Dixon and the King George under the command of Captain Nathaniel Portlock sailed around the world in the years 1785 to 1788. The various voyages in this expedition were for trading between the West Coast of America and China. The letters published in A Voyage Round The World were written by William Beresford, the supercargo aboard Dixon's vessel.¹⁷

¹⁷ Nathaniel Portlock and George Dixon, A Voyage Round The World But More Particularly To The North-West Coast of America Performed In 1785, 1786, 1787, and 1788, In King George and Queen Charlotte, Captains Portlock and Dixon (London: Published by George Goulding, Havden's Head, No. 6, James Street, Covent Garden, 1789).

It was he who transcribed the descriptions of the Hawaiian language and the vocabularies referred to in this discussion.

The first reference in the letters to the language of Hawaii was written September 1787.

Their language is soft, smooth, and abounds with vowels. In their conversation with each other it appears very copious, and they speak with great volubility; but when conversing with us, they only make use of those words which are most expressive and significant, purposely omitting the many articles and conjunctions made use of in speaking to each other. But as a specimen, will give thee a much better idea of the language than any description can possibly do, the following vocabularies are presented.¹⁸

In studying the vocabulary listings recorded by William Beresford, there are a number of observations of importance in understanding the relationship between the orthography and the associated phonemes. Beresford used both <a> and <ah> for the phoneme |a|, and <e> for |i| or |ε|, and double <ee> for the |i|. The grapheme <i> was associated with |aI| in "Whitittee" and with |i| in "tihi". Taking "tihi" as an example, it could be inferred from the orthographic system represented here, that "tihi" could be pronounced [tihi] or [taIhi] or [tihaI]. No such variations were found with <o>; the <oo> and <u> graphemes both seemed to have been associated with |u|.

¹⁸Ibid., Letter XLI, p. 268.

TABLE 10

AN ANALYSIS OF THE ORTHOGRAPHIC SYSTEM EMPLOYED BY WILLIAM BERESFORD

Orthography	From Beresford Key Word	English Glossary	Phonemes Suggested by Hervey	Key Words from Pukui and Elbert
a	<u>tanie</u>	a husband	a	kāne man
ah	<u>hah</u>	four	a	hā four
e	<u>enou</u>	bad	i	'ino bad
e	<u>meme</u>	make water	i	mimi urinate
ee	<u>whaheene</u>	woman	i	wahine woman
i	<u>tihi</u>	one	i	kahi one
i	<u>Whititte</u>	Waikiki Bay	aI a-i	Waikiki Bay
o	<u>to</u>	sugar cane	o	kō sugar cane
oo	<u>madooā tanie</u>	father	u	makua kāne father
u	<u>titu, manie</u>	brother	u	kaikunāne brother
ei	<u>taheidy</u>	a fan or fly-flap	e-i eI	pe'ahi a fan
oe	<u>oe</u>	you	o-e	'oe you (singular)
oi	<u>Molotoi</u>	Moloka'i	o-i oI	Moloka'i
ou	<u>arrou arou</u>	great, plenty	o-u	no equivalent
ow	<u>marow</u>	cloth worn by men	o	malo loin cloth

TABLE 10 Continued

Orthography	From Beresford Key Word	English Glossary	Phonemes Suggested by Hervey	Key Words from Pukui and Elbert
ow	Oneehow	Niihau	au a-u	Niihau
d	<u>madooa</u>	parent	d	<u>makua</u> parent
b	<u>boa</u>	a hog	b	<u>pua'a</u> pig, hog, swine
bb	<u>abbobo</u>	to-morrow	b	<u>'apōpō</u>
f	<u>oofe</u>	yams	f	<u>uhi</u> yam
gh	<u>ooghe</u>	yams	f	<u>uhi</u> yam
h	<u>heeva</u>	a song in chorus	h	no equivalent
m	<u>malama</u>	sun	m	<u>malama</u> light
n	<u>nooe</u>	large	n	<u>nui</u> <u>big</u> , large
p	<u>poe</u>	taro, pudding	p	<u>poi</u> Hawaiian staff of life made from cooked taro corms
r	<u>aree</u>	chief	r	<u>ali'i</u> chief, chiefess, king, queen, noble, royal

TABLE 10 Continued

Orthography	From Beresford Key Word	English Glossary	Phonemes Suggested by Hervey	Key Words from Pukui and Elbert
rr	<u>wharra</u>	potatoes	r	'uala sweet potato
t	<u>ete</u>	small	t	iki small
tt	<u>matte</u>	dead, to kill	t	make to die
v	<u>vy</u>	water	v u	wai water
wh	<u>whaheene</u>	woman	w	wahine woman
y	<u>myty</u>	good	aI a-i	maika'i good
y	<u>myty</u>	good	aʔi	maika'i good

It is difficult without a pronunciation key to reconstruct what Beresford heard from what he presented orthographically, particularly with the vowels and diphthongs. The <ei> grapheme may have been pronounced |e-i|, the <oe> as |o-e|, <oi> as |o-i|, <ou> as |o|, and <ow> as |av| or sometimes |o|.

In the case of the consonants, the following substitutions of orthographic symbols may be noted: <d> for <k> as in madooa and makua; for <p> as in boa and pua'a, for <bb> as in abbobo and 'apōpō; <f> for <h> as in oofe and uhi; <gh> for <h> as in ooghe and uhi; <r> and <rr> for <l> as in aree and ali'i, wharra and 'uala; <t>, <tt> and <k> as in ete and iki and matte and make; <v> for <w> as in vy and wai; <wh> for <w> as in whaheene and wahine, and <y> for <ai> or <a'i> as in myty for maika'i. In each of the above cases, the first word listed is from Beresford's orthography and the second spelling of the same word is from Pukui and Elbert.¹⁹

The phoneme column represents an attempt to interpret what the pronunciation of the key word would be were the orthographic clues followed. Another phoneme column has been included in order that the pronunciation of the words as listed by Pukui and Elbert would be available for

¹⁹Pukui and Elbert, op. cit.

comparison.²⁰

The following two tables present an analysis of the "fit" based on the vocabularies recorded by Beresford. The first table contains the analysis of the vowels and diphthongs, the second analysis of the consonants. The numbering system for the orthographic symbol count and the phoneme count were designed to clarify the ratio between the orthographic symbols and the phonemes.

TABLE 11

AN ANALYSIS OF THE "FIT" FOR VOWELS AND DIPHTHONGS
BASED ON THE VOCABULARIES RECORDED
BY BERESFORD

Orthographic Symbol Count	Orthographic Symbols From Beresford	Associated Phoneme	Phoneme Count
1	a	a	1
2	ah	a	1
3	e	i	2
4	ee	i	2
5	i	i	2
5	i	aI a-i	3
6	o	o	4
7	oo	u	5
8	u	u	5
9	eí	eI e-i	6
10	oe	o-e	7
11	oi	o-i oI	8
12	ow	au a-u	9
12	ow	o	10

²⁰Ibid.

TABLE 12

AN ANALYSIS OF THE "FIT" FOR CONSONANTS BASED ON
THE VOCABULARIES RECORDED BY BERESFORD

Orthographic Symbol Count	Orthographic Symbols From Beresford	Associated Phoneme	Phoneme Count
1	d	d	1
2	b	b	2
3	bb	b	2
4	f	f	3
5	gh	f	3
6	h	h	4
7	m	m	5
8	n	n	6
9	p	p	7
10	r	r	8
11	rr	r	8
12	t	t	9
13	tt	t	9
14	v	v u	10
15	wh	w	11
16	y	aI	12
16	y	a?i	13

Twelve orthographic symbols were used to represent ten vowel phonemes. If a one-to-one relationship means that one orthographic symbol is associated with one phoneme, the following summary of these relationships is appropriate; reading down the columns of Table 13, the data is further reduced as expressed in the following "fit" figures.

TABLE 13

SUMMARY "FIT" ANALYSIS FOR VOWELS AND DIPHTHONGS

Orthography	-to-	Phoneme
2	:	1
3	:	1
1	:	2
1	:	1
2	:	1
1	:	1
1	:	1
1	:	1
1	:	2

There were four one-to-one, two two-to-two, two one-to-two, and one three-to-one relationships. A phonemic orthographic system would be one in which a one-to-one correspondence between each phoneme and its corresponding orthographic symbol would predominate.²¹ In the case of the consonants, the same refinement of the "fit" analysis may be applied as a method of data interpretation.

The following summary is derived from the data in Table 14.

Here there were seven one-to-one, four two-to-one, and one one-to-two relationships revealed through the analysis.

Any evaluation of the work of these compilers of vocabularies on voyages to Hawaii prior to 1820, must be

²¹Pike, op. cit., p. 246.

TABLE 14
SUMMARY "FIT" ANALYSIS FOR CONSONANTS

Orthography	-to-	Phoneme
1	:	1
2	:	1
2	:	1
1	:	1
1	:	1
1	:	1
1	:	1
2	:	1
2	:	1
1	:	1
1	:	1
1	:	2

tempered by the realization that any comparative analysis of the vocabularies under scrutiny rests on the information accumulated since 1780. In addition to this consideration, there are distinct dangers inherent in drawing wide inferences from limited data; most certainly this a constant temptation. With these cautions in mind, the vocabularies chosen for study were evaluated along narrowly circumscribed lines. First, there was the consideration about when the original work was written in order that some historical perspective might be introduced. Second, interest was focused on making some inferences concerning the correspondence between the written symbol and the sound symbol. In instances where a pronunciation key was included in the writings of the original recorder, this phase of the analysis was more objective. More frequently, it was

necessary to construct a pronunciation key from the data supplied. The several tables included in this chapter serve to document the statements, inferences, and conclusions drawn.

Third, the reconstructed "fit" was then compared with the work of the currently recognized authorities on Hawaiian pronunciation and vocabularies, Mary Kawena Pukui and Samuel H. Elbert. The Hawaiian-English and English-Hawaiian dictionaries compiled by these two scholars have facilitated the present work. To an extent, the research of this writer waited upon the compilation of these two dictionaries. Though there were dictionaries in the Hawaiian language previously, these earlier works were not as comprehensive nor had their compilers the advantage of a linguistic orientation such as that which Professor Elbert brought to his work.

In addition to the aspects of the research concerned with the vocabularies of selected voyages, some insights have developed in the course of the study. There was evidence that the recorder, in writing Hawaiian, may have been influenced by the orthography of his native language.²² The phonological system of the native

²²William Beresford wrote the Hawaiian word for yams as "ooghe" in his vocabulary. Portlock and Dixon, op. cit., p. 269.

language of the recorder may have pre-conditioned him to hear certain phonemes to the exclusion of others, e.g., not one of the vocabularies reflects a recognition of the glottal stop as a phonemic element in the Hawaiian phonological system.

By their own admission, some expeditions were better able to communicate with the natives of the Sandwich Islands than others were. Without rating all of those mentioned in this work, one might say that James Cook and his group were successful in their communication attempts while Captain Von Krusenstern experienced considerable difficulty.²³ None of the vocabularies left by the voyagers to Hawaii prior to 1820, represented what could be called a phonemic alphabet.²⁴

Urey Lisiansky

Captain Urey Lisiansky in command of the ship Neva

²³Adam John Von Krusenstern, Voyage Round The World In The Years 1803, 1804, 1805, and 1806. By Order Of His Imperial Majesty Alexander The First, On Board The Ships Nadeshda, And Neva, Under Command of Captain A. J. Von Krusenstern (London: Printed by C. Roworth, Bell-yard, Templebar, For John Murray, Bookseller To The Admiralty And The Board of Longitude, 50, Albemarle-Street, 1813), p. 195.

²⁴Kenneth Pike indicates that in a phonemic orthography there should be a one-to-one relationship between each phoneme and the symbolization of that phoneme. (Kenneth Pike, op. cit., p. 208).

accompanied Von Krusenstern on his circumnavigation of the globe.²⁵ Von Krusenstern commented that the expedition came upon the east end of "Owaihi" at six o'clock on Thursday morning, the 7th of June, 1803. Von Krusenstern supposed that since the vocabularies collected by Captain Cook in Tahiti and Hawaii manifested a close relationship between the languages spoken in the two island groups, they would have little difficulty speaking with the natives of the Sandwich Islands. This did not prove to be the case. The following quotation will make the state of affairs clear.

From the specimens in Captain Cook's voyages, of several words in the language spoken in these two groups of islands, it should seem that the natives ought perfectly to comprehend each other, as many of the words bear the closest affinity; our wild Frenchman, however, could not make himself understood, nor interpret the least thing to us. A few English words, which these islanders pronounced with tolerable correctness, assisted us greatly in our intercourse with them, and enabled us in some degree to understand them. The difference in the pronunciation of the people of Owaihi may perhaps be the reason of their not comprehending the Frenchman.²⁶

²⁵Urey Lisiansky, A Voyage Round The World In The Years 1803, 1804, 1805, and 1806 Performed By Order Of His Imperial Majesty Alexander The First, Emperor Of Russia In The Ship Neva, Appendix II, "A Vocabulary Of The Language Of The Sandwich Islands" (London: Printed for John Booth, Duke Street, Portland Place; and Longman, Hurst, Rees, Orme, and Brown, Paternoster Row, By S. Hamilton, Weybridge, Surrey, 1814).

²⁶Von Krusenstern, op. cit.

Captain Lisiansky was evidently able to communicate with the natives well enough to compile a substantial vocabulary of the language of the Sandwich Islands.²⁷ The compiler received the impression that the Hawaiians talked "in a soft tone of voice: m, in speaking is sometimes substituted for k, and g not sounded at all, or very slightly."²⁸ The following table presents an analysis of the orthographic system as it appears in the vocabulary in Lisiansky's book. Even though this analysis may serve only to reflect the convictions of the translator, it is included here together with some qualifications; it was thought that the Russians ought to be represented in this work along with the French and the English since the vocabularies of these powers were available for study. It is known that the commanders of this expedition had possession of the vocabularies compiled by William Anderson of the Cook expedition.

Table 16 presents an analysis of the "fit" based on the vocabulary found in the translated work of Lisiansky, followed by tables of summary "fit" analyses for both vowels and consonants. Through these analyses, it is possible to arrive at a judgment as to whether the

²⁷Lisiansky, op. cit., pp. 326-328.

²⁸Ibid., p. 326.

TABLE 15

AN ANALYSIS OF THE ORTHOGRAPHIC SYSTEM FOUND IN THE TRANSLATED WORK OF LISIANSKY

Orthography	From Lisiansky Key Word	English Glossary	Phonemes Suggested by Hervey	Key Words from Pukui and Elbert
a	<u>haree</u>	house	a	<u>hale</u>
ah	<u>ahvea</u>	where is she?	a	<u>'auhea</u>
e	<u>vahene</u>	woman	i	<u>wahine</u>
e	<u>keokeo</u>	white	e	<u>ke'oke'o</u>
ee	<u>veetee</u>	quickly	i	<u>wiki</u>
i	<u>lore</u>	rat	i	<u>'iole</u>
o	<u>motoo</u>	island	o	<u>moku</u>
oo	<u>opoo</u>	belly	u	<u>'ōpū</u>
ou	<u>poupou</u>	little	o	no equivalent
u	<u>limanui</u>	thumb	u	<u>lima nui</u>
h	<u>heranee</u>	sky	h	no equivalent
b	<u>abobo</u>	morrow	b	<u>'apōpō</u> day after tomorrow
k	<u>kooa</u>	God	k	<u>akua</u>
l	<u>la</u>	sun	l	<u>lā</u>
m	<u>maro</u>	cloth for men	m	<u>malō</u>

TABLE 15 Continued

Orthography	From Lisiansky Key Word	English Glossary	Phonemes Suggested by Hervey	Key Words from Pukui and Elbert
n	<u>punee punee</u>	lie	n	<u>pūne'e</u> to crawl or move humbly as before a chief
p	<u>tapa</u>	cloth of the country	p	<u>kapa</u>
r	<u>pororoo</u>	spear	r	<u>pololū</u> long spear
t	<u>ty</u>	sea	t	<u>kai</u>
v	<u>vy</u>	water	v u	wai
y	<u>myty</u>	good	a ^I	<u>maika'i</u>
y	<u>myty</u>	good	a ^ʔ i	<u>maika'i</u>

orthographic system under discussion is phonemic or not. The ratio between orthographic symbols and phonemes is given in numerical terms in the summary "fit" analysis. It can be seen that there is a very close correspondence between the Hawaiian key word found in Lisiansky's work and the notation found in Pukui and Elbert.²⁹ Table 16 reveals that seven orthographic symbols were used to represent four phonemes. The following "fit" analysis will corroborate this evaluation for the vowels.

TABLE 16

AN ANALYSIS OF THE "FIT" BASED ON THE VOCABULARY FOUND
IN THE TRANSLATED WORK OF LISIANSKY - VOWELS

Orthographic Symbol Count	Orthographic Symbols From Lisiansky	Associated Phoneme	Phoneme Count
1	e	i	1
1	e	e	2
2	ee	i	1
3	i	i	1
4	o	o	3
5	oo	u	4
6	ou	o	3
7	u	u	4

²⁹Pukui and Elbert, op. cit.

TABLE 17

SUMMARY "FIT" ANALYSIS FOR VOWELS

Orthographic Number	Symbols Ratio	Symbols	-to-	Associated Phonemes	Number	Ratio
3		e, ee, i	:	i	1	
1		e	:	e	1	
2		o, ou	:	o	1	
2		oo, u	:	u	1	

If this orthographic system were "phonemic", the number ratios on both the orthographic and phoneme sides of the table would equal one.

TABLE 18

AN ANALYSIS OF THE "FIT" FOR CONSONANTS BASED ON THE
VOCABULARY FOUND IN THE TRANSLATED
WORK OF LISIANSKY

Orthographic Symbol	Count	Orthographic Symbols From Lisiansky	Associated Phoneme	Phoneme Count
	1	h	h	1
	2	b	b	2
	3	k	k	3
	4	l	l	4
	5	m	m	5
	6	n	n	6
	7	p	p	7
	8	r	r	8
	9	t	t	9
	10	v	v u	10
	11	y	aI	11
	11	y	aʔi	12

The ratio between the orthographic symbol and the phoneme of the consonants is on a one-to-one basis with the exception of <h> which is pronounced in some words as an

aspirant glottal fricative and in others is not pronounced at all, as in <ah> spellings. Inconsistencies in the use of <l> and <r>, <t> and <k>, <p> and are noted from a study of this vocabulary. A summary analysis of "fit" will not be necessary since it would duplicate the findings already derived from Table 18.

Recapitulation-Precapitulation

Linguistic Point of View

The major emphasis in this discussion of the linguistic concerns of the study deals with the graphemic analysis summarized in Tables 19, 20, and 21. These same data will be discussed also within the framework of the general phonemic goals suggested by Pike.³⁰

Graphemic Analysis

Classes of Words.— The majority of words chosen for the analyses of the orthographic adaptations are from the noun class. Place names head the frequency list, while names of common objects fall into second place and names of persons into third. Place names were used when possible since they were the most numerous examples available for study, and could be identified for comparison with current spelling.

³⁰Pike, op. cit., pp. 208-211.

Vowels.— None of the orthographers studied recognized more than half of the nineteen vowels and diphthongs listed by Pukui and Elbert in their analysis.³¹ The highest recognition count for vowels and diphthongs derived from the analysis of these vocabularies was found in the Anderson, Campbell, and Beresford materials, each one having ten.

The various lexicographers had a tendency to use digraphs to represent the vowel phonemes which they recognized. For the phoneme |i| five out of six used the <ee> grapheme; for |e| two out of six used <ei>; for |o| three out of six used either <ou> or <ow>; for |a| four out of six utilized the <ah> grapheme; and all six used either <oo> or <ou> for |u|.

Diphthongs.— Out of a total of nine diphthong-like vowel combinations identified by the recorders studied, Lisiansky records eight, Pukui and Elbert eight, Anderson five, Beresford five, Campbell four, Vancouver four, and Arago two. The early lexicographers may have heard the diphthongs listed in the first column of Table 19 as similar to the diphthongs of English, even though this writer has transcribed them as rising diphthongs having less of a blend between the two elements than is the case

³¹Pukui and Elbert, op. cit., p. xxix.

TABLE 19

COMPARATIVE SUMMARY OF ORTHOGRAPHIC SYSTEMS STUDIED: VOWELS AND DIPHTHONGS

Hawaiian ^a Phonemes	Orthographic Systems From				Current Practice	
	Anderson	Campbell	Vancouver	Arago	Beresford	Lisiansky Pukui and Elbert from
1 i	i, ee	ee	e	i, ee	e, ee	i, e, ee
2 i.						i
3 I		i				i
4 I ¹						i
5 ε						e
6 e	e	e	e, ei	e, e.	ei	e
7 e.						e
8 u	oo	oo	oo	oo, ou	u, oo	u
9 u.						u
10 o	o	o	o	o, ou	o, ow	o
11 o.						o
12 ə						a
13 a	a	a	a, ah	a, ah	a, ah	a
14 a.						a
15 e-i						ei
16 e-u	eu		ie			eu
17 o-i	oi	oi	oi	oi		oi
18 o-u	ou			ou		ou
19 a-i	ai, y	ai, ei, y	ai, ea, igh	ai	i	ai
20 a-e						ae
21 a-o						ao
22 a-u		ow	ow	ow		au
23 o-e	oe	oe		oe		

^aThis column is an index of phonemes recognized by the orthographers cited, as inferred from the graphemic analysis.

with the diphthongs of English. For the diphthong [a-i], Anderson used the grapheme <i> while Beresford used the <y> grapheme.

Consonants.— After studying the consonant graphemes introduced by Anderson and those who followed, it is apparent to this writer that the double consonant graphemes (digraphs) were used interchangeably with single symbol graphemes for the same phoneme. Examples of this are found from Anderson e.g., <p> and <pp> used to represent |p|, from Campbell, <m> and <mm> to represent |m|; from Vancouver, <n> and <nn> to represent |n|; and Beresford, and <bb> to represent |b|.

As evidenced by their orthographic adaptations, the conventions of English orthography influenced Anderson, Campbell, and Beresford. As may be seen from Table 20, the vocabularies of Arago and Lisiansky were free of these conventions, the influence being from French rather than from English. In Chapter III the influence of the native language of the missionaries from New England and Tahiti will be traced, as they apply themselves to the problems of adapting an orthography to Hawaiian.

The problem of the interchangeable letters, as the missionaries were to call them, presented difficulties to Anderson and those who followed him. A recapitulation of the six vocabularies studied revealed four with a problem

TABLE 20

COMPARATIVE SUMMARY OF ORTHOGRAPHIC SYSTEMS STUDIED: CONSONANTS

Hawaiian Phonemes	Orthographic Systems From					Current Practices	
	Anderson	Campbell	Vancouver	Arago	Beresford	Lisiansky	from Pukui and Elbert
24 b	b	b	b	b	b, bb	b	
25 p	p, pp	p	p	p	p	p	p
26 d	d				d		
27 t	t, tt	t	t	t	t, tt	t	
28 k		k, ck	k, c	c		k	k
29 m	m	m, mm	m	m	m	m	m
30 n	n	n, nn	n, nn	n	n	n	n
31 l		l	l	l		l	l
32 r	r	r, rr	r, rr	r	r, rr	r	
33 w	w, wh	w, wh	w, wh	w	wh		w
34 v or u	v	v	v	v	v	v	w
35 f	f				f, gh		
36 s				s			
37 h	h	h	h	h	h	h	h
38 ʻ							ʻ

concerning the interchangeability of <p> and , two concerning <d> and <t>, three concerning <l> and <r>, four concerning <t> and <k>, and one concerning <w> and <v>. As can be seen from the last column of Table 20, current spelling practices are relatively free of all of these orthographic confusions except for the representation of the phonemes |w| and |v|; in either case, Pukui and Elbert use the grapheme <w> for both.

There were several examples found of two different graphemes being used to represent a single phoneme. Instances of this practice were found from Anderson: <w> and <wh> for |w|; from Campbell: <k> and <ck> for |k|; from Vancouver: <k> and <c> for |k|; and from Beresford: <f> and <gh> for |f|. Again, the Lisiansky and Arago orthographies were free of these variations.

If the grapheme usage patterns represented in the various vocabularies are compared, the following count is obtained: Six used or <bb>, <t> or <tt>, <m> or <mm>, <n> or <nn>, <r> or <rr>, and <h>; five used <p> or <pp>, and <v>; four used <w>, and <wh>; three used <k> and <l>; two used <d>, and <f>; one orthography used <s>. If only those orthographic symbols agreed upon by all six of the orthographers studied were included in an alphabet for Hawaiian, the alphabet would look like this: <a> for |a|, <ee> and/or <e> for |i|, <e> for |e|, <o> for |o|, <oo> for |u|, for |b|, <h> for |h|, <m> for |m|, <n> for |n|,

<r> for |r|, and <t> for |t|.

Fit Ratios.- The use of grapheme-phoneme ratios presents one method for evaluating the degree of approximation to a phonemic orthographic system, a one-to-one fit ratio representing the ideal. An analysis of the data from Table 21 reveals that the fit ratios of the vocabularies included in this study may be expressed as follows: Anderson 1.8:1, Campbell 1.2:1, Vancouver 1.3:.75; Arago 1.1:1, Beresford 1.3:1, Lisiansky 1.2:1, and Pukui and Elbert 1:.81. The orthographies employed by Arago and Pukui and Elbert approximate most closely the criteria for a phonemic orthographic system, i.e., a 1:1 fit ratio.

Phonemic-Graphemic Considerations

During the analysis stage of this study the following general phonemic goals are used as criteria for evaluating the orthographic adaptations recorded by voyagers to Hawaii before 1820 and by the missionaries from New England.

Phonemic Concept.- A practical orthography should be phonemic, i.e., there should be a one-to-one (1:1) correspondence between each phoneme and the graphemic symbolization of that phoneme. Every sound unit which may replace other sound units, thereby causing a phonemic

TABLE 21

SUMMARY OF GRAPHEME-PHONEME COUNTS FOR VOWELS AND CONSONANTS^a

Identifying Name For Vocabulary	Grapheme Count Vowels	Grapheme Count Consonants	Phoneme Count Vowels	Phoneme Count Consonants	Grapheme Count Total	Phoneme Count Total
Anderson	11	15	10	13	26	23
Campbell	11	17	10	12	28	22
Vancouver	12	13	9	9	24	18
Arago	12	13	8	13	25	21
Beresford	14	16	10	12	30	22
Lisiansky	9	11	5	11	20	16
Pukui and Elbert	18	8	19	11	26	29

^aStatistics were derived from an analysis of Tables 19 and 20.

change, should be represented in the orthography,³² i.e., there should be no more symbols than there are phonemes. The fit ratios presented above (derived from Table 21) represent one way of expressing the degree to which any orthographic system approximates the phonemic ideal discussed here.

Submembers of Phonemes.- Submembers of phonemes should rarely receive distinct symbolization since the native language speaker would tend to be unaware of these differences.³³ The evidence from Table 20 indicates that native Hawaiian speakers did not differentiate |l| and |r|. The native speaker, even though he may hear these differences, can nevertheless discover and apply a rule which would guide him when to use the one symbol or the other.

There are some cases in which a conditioned variety of a sound should receive a separate symbol. This situation occurs when certain variants of a vernacular phoneme constitute separate phonemes in the trade language. In such a case, the socio-linguistic pressures may be strong enough to force the orthographer to depart from phonemic practices in order to gain popular support for the

³²Pike, op. cit., p. 208.

³³Ibid., p. 209.

orthography.³⁴ Pukui and Elbert mention this concept as did the missionaries discussed in Chapter III.³⁵

Freely Fluctuating Varieties.- Freely fluctuating varieties of a phoneme should not receive separate symbolization (e.g., in Hawaiian |t| and |k|) but should be written with a single symbol.

Free Variation. - Free variation between two full phonemes may call for a different recommendation, according to Pike. The basis for a decision about which phoneme to use may be either frequency or dialectal distribution. If one of the phonemes is used more often than the other, this one should be given preference in establishing the orthographic system. The phoneme with the widest possible dialectal distribution should be chosen. Printed materials will be more acceptable in more dialects, since they will represent a form in current use over a wider area.³⁶

Pronunciation.- The symbols (graphemes) employed in an orthography should represent the sounds as pronounced by the native speakers of the language. The construction of an

³⁴Ibid.

³⁵Pukui and Elbert, Hawaiian-English Dictionary, op. cit., pp. xv-xvii.

³⁶Pike, op. cit., p. 209.

orthographic system based on morphology alone, may hinder rather than help the establishment of sound symbol-written symbol (phoneme-grapheme) association.³⁷ The voyagers before 1820 and the missionaries who followed relied almost exclusively on the phonological evaluations. It was not until the first Hawaiian grammars appeared in print that morphemic considerations began to modify spelling conventions, e.g., such as the writing of "Hawaii" instead of "Owhyhee".

Speech Rate.- When the articulation of the speech sounds within words differs according to whether they are pronounced rapidly or slowly, the choice of orthography may be influenced by other factors.

Pronunciations which are given only in extremely rapid speech are best avoided in symbolization because people do not tend to read with that same rapidity--at least not in the early stages of learning. The slow reading of an extremely rapid form is certain to produce an unnatural result which may be misunderstood by the native learning to read. On the other hand, pronunciations which are used for extremely slow speech should also be avoided. The most satisfactory choice seems to be a somewhat slow but normal style.³⁸

This problem of rate has been noted in Table 2, page 26 of this chapter and will be discussed again in Chapter III, in

³⁷Ibid.

³⁸Ibid., p. 209.

the context of the missionaries encountering the same problem.

Tone, Phonology, Stress.- When the phonemic-graphemic analysis indicates that the phonemes identified as part of the phonology of the language, must be categorized as consonants or vowels or phonetically complex phonemes, it is desirable for them to be written so as to reflect this analysis.³⁹

Stress as related to vowel length is an important consideration. The vocabularies studied in this chapter reveal that there was no recognition of the phonemic aspects of vowel length. Pukui and Elbert reflect the contemporary understanding of the subject in their use of the graphemes <a> and <ā> to represent the unstressed and stressed forms of the phoneme |a|. ⁴⁰ The use of the grapheme <ah> in the Vancouver orthography manifested an attempt to identify the aspirant quality heard in conjunction with the articulation of |a| in certain positions. The use of <oi> for representing the diphthong-like combination |o-i|, has been noted by this writer (see Table 19, page 72).

³⁹Ibid., p. 210.

⁴⁰Pukui and Elbert, Hawaiian-English Dictionary, op. cit., p. xv.

Word Borrowing.- One of the problems encountered both by the early orthographers and the missionaries who followed, was adequate provision in the orthography for the representation of words borrowed from other languages. If these loan words have been completely assimilated to the native language (Hawaiian), then they do not contain sounds which the native language lacks, nor do they contain familiar sounds in unfamiliar sequences;⁴¹ "Amerika" for "America" is an example of an assimilated loan word. There are relatively few assimilated loan words to be found in the records of voyages to Hawaii before 1820. These early lexicographers were more interested in compiling vocabularies of Hawaiian words to be used in daily conversation, and in filling in the place names on their charts than in introducing loan words into a language that had never been written. An account of how the Hawaiians first learned to read in their own language will be found in Chapters II and III. The assimilation of words to Hawaiian increased with more contact with foreigners. During the missionary period (after 1820) a great number of loan words were introduced from Biblical sources: Helene (Greek), nu (new), Iona (Jonah), Malaki (Malachi), et cetera.

When loans are not completely assimilated, and contain

⁴¹Pike, op. cit., p. 211.

sounds which words of native origin do not contain, then the task of adapting an orthography becomes more difficult.⁴² In this case symbols must be added to the alphabet to represent these extra sounds. Beretania (Britannia),⁴³ and Britannee (Britain)⁴⁴ offer examples of loans not completely assimilated. Further discussions of these matters may be found in Chapter III.

Socio-Linguistic Point of View

Since the application of socio-linguistic principles is most applicable to the missionary period, they will be mentioned only briefly in this discussion and dealt with more extensively in Chapter III.

Acceptability

A practical orthography should be acceptable to the people of the region where it is to be introduced.⁴⁵

⁴²Ibid., p. 11.

⁴³Pukui and Elbert, Hawaiian-English Dictionary, op. cit., p. 19.

⁴⁴George Vancouver, op. cit., p. 21.

⁴⁵Pike, op. cit., p. 212.

Familiarity

It is preferable to introduce no strange letters.⁴⁶

Diacritics

Diacritic marks should be avoided where possible.⁴⁷

Facility

Symbols should be chosen with consideration for the ease with which they can be printed.⁴⁸

Flexibility

If material is to be readily printed, the letters within the Roman alphabet should be used to best advantage.⁴⁹

Adequacy

It is desirable to have an alphabet which is adequate for teaching illiterates to read.⁵⁰

Adaptability

"The alphabet should be adapted to the needs of

⁴⁶Ibid.

⁴⁷Ibid.

⁴⁸Ibid.

⁴⁹Ibid.

⁵⁰Ibid.

bilinguals in the same area...."⁵¹

Dialectal Spread

"The alphabet chosen should represent a wide [dialectal] area."⁵²

Acceptance of Loan Words

"One needs to observe the strength of a tendency to incorporate loan words from the trade language."⁵³

Literacy Campaigns

More primers being introduced in the vernacular increases the pressure towards using an adequately phonemic alphabet.⁵⁴

Cultural Anthropological Point of View

Antecedents to Change

The instance of a large sailing vessel from another culture coming upon the Hawaiian Islands constituted a chance for cultural diffusion to occur in diverse areas of the recipient culture. Whether this diffusion involved the introduction of mutton by Vancouver,⁵⁵ the discovery that

⁵¹Ibid.

⁵²Ibid., p. 213.

⁵³Ibid.

⁵⁴Ibid.

⁵⁵George Vancouver, op. cit., Vol. III, p. 62. Van-

ships were held upright by keels instead of outriggers, or the use of firearms, the stage was being set for a period of successive innovations which were to be instrumental in altering every facet of Hawaiian culture.

Cultural Fatigue

Though the period of manifest cultural fatigue occurred during the reign of King Kamehameha II (Liholiho) 1819-1824, harbingers of coming events are to be found in the period before 1819. On his deathbed King Kamehameha I, asked an attendant to tell him all about the Christian religion.⁵⁶ This writer is well aware that one instance does not constitute a trend. However, this instance multiplied by the evidence supplied in Chapter III, and corroborated by the historian Ralph S. Kuykendall⁵⁷ and the anthropologist Alfred L. Kroeber,⁵⁸ does strengthen this case. Cultural

couver served King Kamehameha and his chiefs mutton and "the general opinion was taken by vote on the superior excellence of mutton to dogs' flesh, and the preference was decided in favor of mutton, only by the casting voice of Tamaahmaah [Kamehameha]."

⁵⁶"Elisha and Maria Loomis Journal, October 23, 1819 to November 11, 1820" [Handwritten copy by Albertine Loomis] (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii), p. 146.

⁵⁷Professor Emeritus of History at the University of Hawaii and author of The Hawaiian Kingdom in three volumes.

⁵⁸Alfred L. Kroeber, long recognized as the dean of American anthropology, discusses the question of cultural fatigue in Hawaii in his book Anthropology: Culture Patterns and Processes (New York: Harcourt, Brace, and World, Inc., 1963), pp. 211-213.

fatigue cannot be represented by a moment in history, but can only be dealt with as a process continuum fed by many elements from within and without the culture in question. The manifestations are likewise part of a process and may be recognized in many areas of the culture simultaneously.

Cultural Diffusion

When something new has evolved in a culture, there is a tendency for it to be passed on to the culture of other societies. The voyages to Hawaii before 1820 may be treated as case histories of cultural diffusion. These first vocabularies of Hawaiian words were collected by questioning native informants. Through contact with foreigners, Hawaiians of high rank became aware that these visitors were able to make marks on paper to represent spoken language. Through the repetition of vocabulary transcription, the people of Hawaii became aware that their own dialect of Malayo-Polynesian could be represented graphically. The sequel to this portion of the history will be discussed further in subsequent chapters of this work. Cultural diffusion is not always a case of two confronting cultures but sometimes is a case of man between cultures. Henry Opukahaia was such a man, marginal to two cultures at once.

Marginal Man

Stonequist defined "marginal man" as the individual who through migration, education,

marriage, or some other influence, leaves one social group or culture without making a satisfactory adjustment to another, finds himself on the margin of each, but a member of neither.⁵⁹

While this definition is far too rigid for application to this study, the basic concept has been applied in more liberal ways. Stonequist himself suggested a more dynamic view of marginality when he stated that marginal man may be conceived of as

one who is poised in psychological uncertainty between two or more social worlds; reflecting in his soul the discords and harmonies, repulsions and attractions of these worlds, one of which is often dominant over the other; within which membership is implicitly if not explicitly based on birth or ancestry, race or nationality; and where exclusion removes the individual from a system of group relations.⁶⁰

During the period of voyages to Hawaii before 1820, each time a native Hawaiian accepted an innovation, this individual may have been for a time, "marginal" to other members of his own culture. With the increased opportunity for Hawaiians to make contact with other cultures afforded by voyages of exploration, there was the increased likelihood that more members of the society would temporarily assume the role of marginal man.

Much more will be written on the subject of the marginal man role played by Henry Opukahaia in Chapter II of this work.

⁵⁹Everett V. Stonequist, The Marginal Man (New York: Scribners and Sons Inc., 1961), pp. 2-3.

⁶⁰Ibid., p. 8.

Innovation and Invention

From a cultural anthropological point of view, the written vocabularies of Hawaiian words surveyed in this chapter represent an innovation in that an existing orthographic system was adapted to the writing of a hitherto unwritten language (Hawaiian). The written records left by the early voyagers represent the first attempts to write Hawaiian words and as such constitute an important chapter in the history of adaptations of an orthography to the Hawaiian language.

Change by Revolution

Through force of arms which had been received in trade with the visitors who came in sailing ships, Kamehameha I united the many rival chiefs of the islands under one sovereign.

Change through Organized Religion

This concept is not a salient factor in the discussion of the voyages; however it will be of major importance in understanding the forces exerted on the culture during the missionary period. The role of organized religion in the life and work of Henry Opukahaia will be included in the following chapter.

CHAPTER II

HENRY OPUKAHAIA

Introduction

Writing the history of how the Hawaiians first acquired an alphabet for their language, involves many seemingly divergent lines of inquiry. One of these includes the life of the Hawaiian boy, Henry Opukahaia, and extends from the pre-missionary Hawaii of 1809 to the New England of 1818. Opukahaia was what the cultural anthropologists call a "marginal man".¹ Through the traumatic experiences of his boyhood, he became alienated from his native society and set out to find a more tolerable world for himself.

In those days of the Hawaiian Kingdom, the most readily available mode of escape was on board one of the many whaling ships which stopped in Hawaii for provisions and the refreshment of their sea-weary crews. Such ships sailed on to the sealing grounds of Alaska, or, if they

¹In conversations with Dr. Alfred G. Smith of the Anthropology Department at the University of Oregon, "marginal" denotes one who cannot conform to the established values of the society in question.

were bound for New England, to Canton and ports beyond. Henry Opukahaia left the Hawaii of his birth because he felt its social, moral, political, and religious aspects of life intolerable. From among all of the native Hawaiians who served on board the whalers and the men-of-war of the United States, Henry Opukahaia epitomized the cultural fatigue which was to manifest itself dramatically in Hawaii ten years later. He was a "voice crying in the wilderness"; one who dared to defy the wishes of the gods, and to journey forth willingly to be taught a new way of life. Opukahaia is the link in the history between the Hawaiian Kingdom of 1800 and the Hawaii Nei (New Hawaii) which was to emerge through the processes of cultural fatigue and cultural diffusion. In every sense of the word he was one of the catalytic agents, involved in the changes which were to take place in the culture of his birth, although he was not to see the results of the forces which he had helped to unleash.

While Henry was motivated at first to improve himself, he later developed a deep, all-pervading concern for the welfare of his people in the Hawaiian Islands. Through his experiences in living with various families in New Haven, Goshen, and Cornwall, his acquaintance with the educational and religious leaders of that day, and his schooling in close association with youths from many parts of the world, Henry discovered a new set of values and a

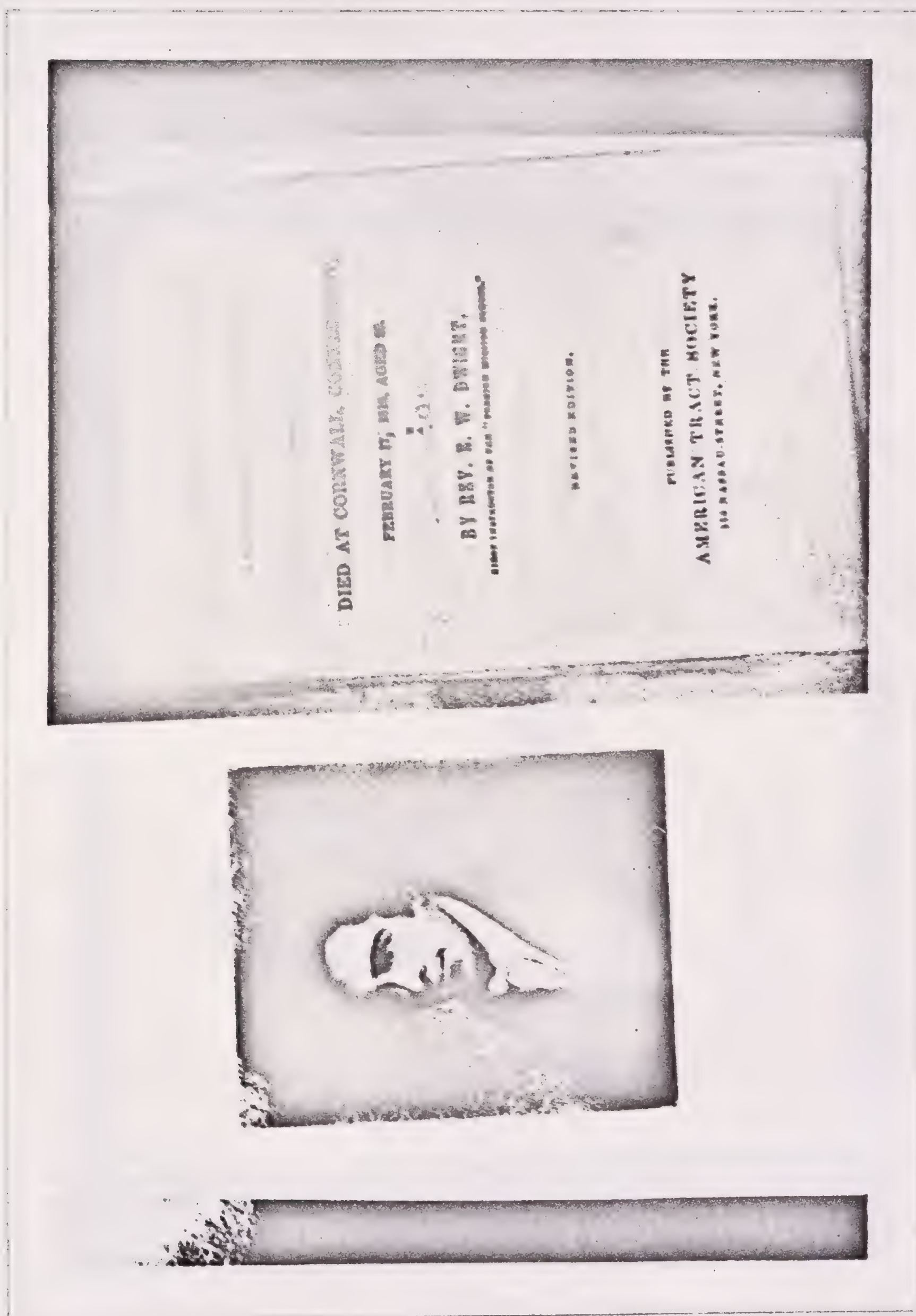


Fig. 3. Frontispiece and title page from Memoir of Henry Obookiah

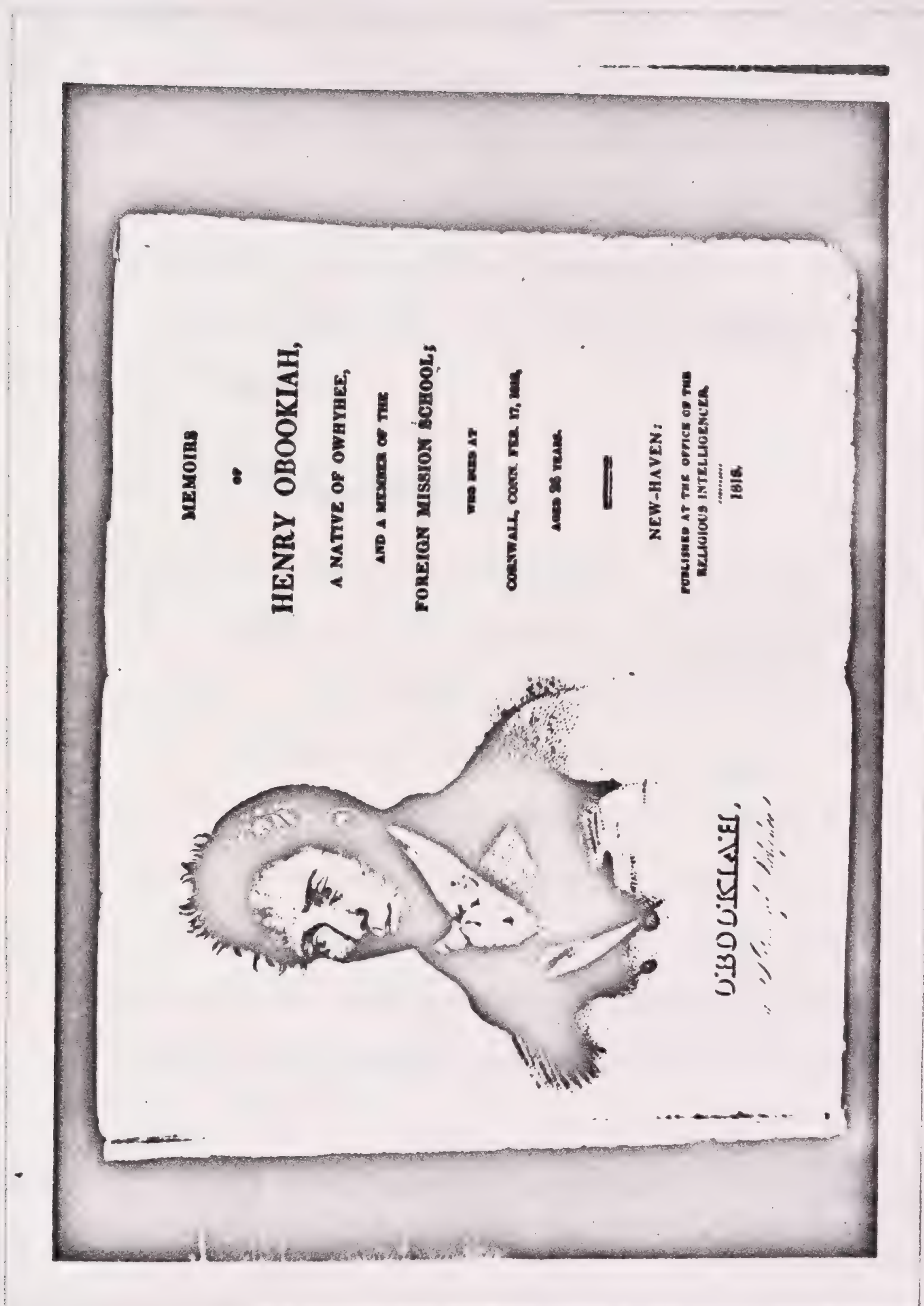


Fig. 4. Frontispiece and title page from Memoirs of Henry Obookiah, 1818 edition.

society where these values were prized. This newly discovered value orientation was closely linked with the Christian teachings enunciated in the schools and colleges, and from the pulpits across New England. The exact nature of Henry's intellectual and spiritual awakening and the consequences of these events for the future of Hawaii, is the concern of this chapter.

Early Childhood

Henry Opukahaia was born on the island of Hawaii, then one of the most important and populous of the Sandwich Islands, in about 1792. His parents ranked with the common people, although his mother was related to the alii (royalty). Both of Henry's parents were slain before his eyes in a war between rival district chiefs. The only surviving member of his immediate family was an infant brother two or three months old who was afterwards mortally wounded by a spear while Henry was attempting to escape with him on his back.²

Subsequently, Henry was captured and taken to the house of the very man who had been implicated in the murder of his

²Edwin Wells Dwight, Memoir Of Henry Obookiah, A Native of the Sandwich Islands Who Died At Cornwall, Connecticut, February 17, 1818, Aged 26 (New York: American Tract Society, 150 Nassau-Street, n.d.), Chapter I, p. 1.

parents. Later he was discovered by an uncle who was a kahuna (priest) of high rank on the island of Hawaii. It was his uncle's plan that Henry should be educated to become a kahuna. An important part of the training was the learning of long prayers concerning the weather, the general prosperity of the island, its defence from enemies, and the happiness and welfare of the king.³

Some time later, Henry was with an aunt, the only surviving relative of his father, when both fell into the hands of hostile warriors. Henry learned that on a certain day his aunt and perhaps he himself were to be put to death. By crawling through a hole in the wall he escaped unobserved, and ran a considerable distance from the dwelling in which he had been imprisoned. Looking back from his hiding place Henry saw his aunt brought out by a number of warriors and thrown to her death from a near-by precipice.⁴

Henry's only thought at this period of his life was to escape from the way of life that had taken every loved one from him and now posed a threat to his own life. A whaler under the command of Captain Brintnall of New Haven, Connecticut, arrived in the bay of Kealakekua in 1807. The words of Henry, from the Journal edited by Edwin Wells

³Ibid., p. 10.

⁴Ibid., p. 12.

Dwight, give us an explicit picture of the circumstances surrounding his departure from Hawaii.

About this time there was a ship come from New York, Captain Brintnall, master. As soon as it got into the harbor, in the very place where I lived, I thought of no move but to take the best chance I had, and if the captain have no objection, to take me as one of his own servants, and to obey his word. As soon as the ship anchored I went on board. The captain soon inquired whose boy I was. Yet I know not what he says to me, for I could not speak the English language. But there was a young man who could speak English, and he told the captain that I was the minister's nephew. The captain wished me to stay on board the ship that night, and the next day go home.⁵

Captain Brintnall invited Henry to have supper with him on board the ship. It was at this time that Henry met Thomas Hopu, who was to be his fellow traveller. Henry's uncle would not allow him to leave the island of Hawaii until the price of a hog had been paid to him for his god. The uncle, a kahuna in the district in which Henry had grown up, was in charge of the heiau (temple of worship) near Kealakekua Bay. Since Henry was to have followed the uncle's teachings and become a priest in his own right, the hog was sacrificed to appease the gods for their loss of his future services in the temple.⁶

Permission from the uncle was obtained, and Henry

⁵Ibid., p. 14.

⁶Ibid., p. 16.

sailed with Thomas Hopu towards the Seal Islands, on the north-west coast of America. On these islands, the captain had left about twenty or thirty men to trap seals on his way to Hawaii. Among these Henry found a young man by the name of Russel Hubbard, a son of General Hubbard of New Haven, Connecticut. Mr. Hubbard was very kind to him during the passage and took time to teach him the letters in the English spelling book. On the return to Hawaii, the ship delayed only a few days, and then set sail towards China. There, the seal skins were sold and the ship was loaded with such goods as "tea, cinnamon, nankeens, and silk".⁷

Henry Opukahaia In New England

A direct course was set from Canton to America. In 1809 Henry arrived in New York where he remained for a few weeks, and after Captain Brintnall sold the cargo, then departed for New Haven, Connecticut. Henry's first recorded reaction to the customs of the society into which he had been introduced, may be found in the comment concerning his amazement at first seeing women eating with men.⁸ While living in the home of Captain Brintnall, Henry was

⁷Ibid., p. 19.

⁸Ibid., p. 22.

introduced to the many aspects of the New England of the early 1800's which seemed exotic to a young, uneducated native of the Hawaiian Islands. During this period of his life in New England, Henry met a number of the students from Yale College and others who were to become interested in helping to further the education and training of this youth.

From the traumatic experiences of his childhood in pre-missionary Hawaii, Henry was catapulted into the world of New England, a world prospering from the lucrative whaling industry and the mercantile shipping expansion of the 1800's. In a completely new environment it took time to adjust and to discover a satisfying role; before his personality had begun to expand under the influences of a new world of experiences, Henry was judged by some to be dull of wit. Reverend Edwin Wells Dwight, his teacher, indicated the first exhibition of any unusual degree of discernment in his character and, indeed, the first evidence that his mind was less inactive than had been supposed.⁹ When he first began to read in words of one or two syllables in the spelling-book, there were certain sounds which he found it very difficult to articulate. In pronouncing the letter <r>, he gave it the sound for the letter

⁹Ibid., p. 25.

<1>. Whenever his teacher attempted to correct his articulation, the phrase used was, "Try Opukahaia, it is very easy".¹⁰ A short time after this, Dwight and Henry were spending an evening together talking about the habits of the Hawaiians when Henry mentioned the manner in which his people drank from a spring when out on hunting trips. The cup they made was accomplished by clasping the hands together, and so adjusting the thumbs, and bending the hands so as to form a vessel which could contain a considerable quantity of water. Henry demonstrated and after positioning his hands, was able to raise them to his mouth without spilling any water. The same experiment was attempted by Dwight, but he found that before his hands were raised half the distance to his mouth, they were so much inverted that their contents would have been lost. Henry, who had been amused by his teacher's efforts said to him, "Try Mr. Dwight, it is very easy."¹¹

During this period of his development, Henry began to show an "uncommon acuteness" and interest in every "singularity" in the speech and manners of those around him; and in the midst of his own awkwardness, to the sur-

¹⁰Ibid., pp. 25-26.

¹¹Ibid., p. 27.

prise of all, he suddenly began to show himself an expert mimic.¹²

Since Henry's wish was to learn to read and write the English language, he soon became impatient with life in the household of Captain Brintnall and wished to live where he could have an opportunity to learn to read and write. He cultivated the friendship of Dwight who, as Henry put it, "was to be my best and kind friend. . . . I made known to Rev. Dwight that I wished to live where I could have an opportunity to get in some kind of school, and work a part of the time."¹³ The foreign mission schools which were to be established across New England would give the Hawaiians, the Chinese, Japanese, Koreans, Scottish, and American Indian boys the opportunity to work on the cooperative farms and attend classes at the schools. Henry was to experience the advantages of this type of schooling at Cornwall, Connecticut.

He moved to President Timothy Dwight's home, where he had the opportunity to spend much time with his books, and as he indicated in his memoirs, "It was the first time I meet with praying family morning and evening."¹⁴ During

¹²Ibid.

¹³Ibid., p. 28.

¹⁴Ibid., p. 29.

this time, Henry continued his tutoring in reading and writing English under the instructorship of Edwin Wells Dwight. Figure 5 gives silent testimony that he mastered the skill of penmanship.

The Foreign Missions Schools

By the year 1810, there were some sixty Hawaiians in the United States, not all of whom had arrived under as pleasant circumstances as had Thomas Hopu and Henry Opukahaia.¹⁵ There is the case of George Prince Kaumualii, son of the King of Kauai, who arrived in Boston in 1803 after having been robbed by the ship's captain of the money sent with him by his father for his education.¹⁶ In addition to these youths from the Hawaiian Islands, there were Tahitians, Chinese, Bengalese, Greeks, Hindus, Amerindians, and Mexicans walking the streets of Boston, New Haven, and Cambridge, asking questions of the New Englanders.¹⁷ One of the questions might well have been, "Where do I go to school to learn to read and write?"

Upon contact with these youths, a number of ministers

¹⁵Edward C. Starr, A History of Cornwall, Connecticut (New Haven, Connecticut: The Tuttle, Morehouse & Taylor Co., 1926), p. 138.

¹⁶Ibid.

¹⁷Ibid., p. 145.

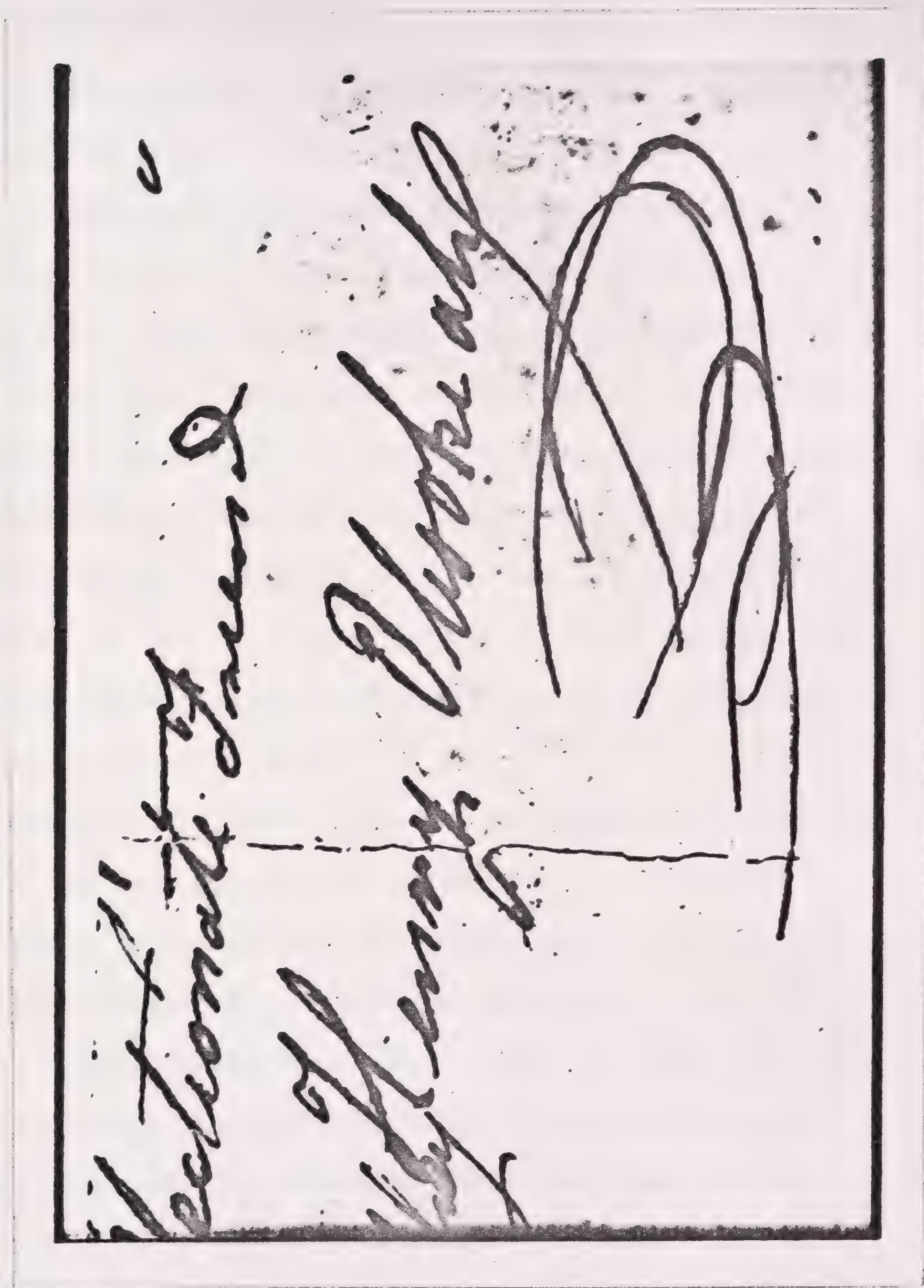


Fig. 5. Example of Henry Opukahaia's handwriting from a letter written by him from Goshen, Connecticut January 6, 1815.

asked the Massachusetts Association of Ministers to send them out as missionaries to the foreign lands from which these youths had come.¹⁸ Dr. Worcester proposed that a missionary organization be established which would primarily be concerned with the establishment of schools for foreign youths in the New England area; the proposal was accepted. This body, organized at Farmington, Connecticut in September at Reverend Dr. Porter's house with Governor John Treadwell for its President, represented the first step toward meeting the needs of the foreign youths arriving in the United States.¹⁹ The effects of these modest transactions would be more far reaching than any of the participants could have surmised.

The thought must have occurred to these practical men of God that the foreign youths living in their homes, attending their schools, and churches, could be educated in the Christian philosophy, taught to read and write in English and their native languages, and sent back to those parts of the world where Christianity had not yet been introduced. Interest in the work with the "heathen youth", as they were called, ran high. During the first year, 1811, contributions to the nonsectarian Board of

¹⁸Ibid., p. 138.

¹⁹Ibid.

Commissioners was \$999.52.²⁰ The American Board of Commissioners For Foreign Missions petitioned for a charter February 12, 1812, and after fierce opposition by several national leaders and prominent citizens of Massachusetts, the petition was granted June 20 of the same year.

In 1814, the Litchfield North Consociation of Churches assumed the responsibility for Henry Opukahaia's education and welfare.²¹ Henry Opukahaia, Thomas Hopu, and William Kanui were in Goshen in 1815 in the charge of Reverend Joseph Harvey. In November, the American Board of Commissioners For Foreign Missions took these three Hawaiian boys under its care, establishing a special fund for them.²² In 1816 a proposal for a separate school for "heathen" youths was advanced, most likely by Mr. Morris at whose academy several of these boys were being taught in a separate building. A deacon of the town of Morris questioned the propriety of a heathens entering their meeting house. However, a favorable article in the Panoplist magazine favored the establishment of the mission school and was instrumental in circulating this view among the readers. A contribution of three-hundred thirty-five dollars,

²⁰Ibid.

²¹Ibid., p. 138.

²²Ibid.

collected by a young lady of Savannah, Georgia, who had heard about the Hawaiian boys, was sent to help defray their educational expenses.²³

The American Board appointed Governor Treadwell, President Timothy Dwight of Yale, Captain Morris, and the Reverends Chapin, Beecher, Prentice, and Harvey as agents for the new school.²⁴ During 1816, \$434.42 was spent for the education of the Hawaiians. By December of the same year the people of Cornwall, Connecticut, had given land and buildings valued at \$1300. Having decided upon the location, facilities were prepared for two Amerindians, five Hawaiians, and one Chinese who were to compose the student body of the Cornwall Foreign Mission School. The first principal of the school was Edwin Wells Dwight who held the post for a year and was succeeded by Daggett, followed in 1824 by Reverend Amos Bassett. The assistant teachers who taught for various periods were Rev. John H. Prentice, Rev. H. L. Vaill, and two pupils who also shared the teaching responsibilities, Horatio N. Hubbell and Bennet Roberts.²⁵

An appreciation of the curriculum offered in the

²³Ibid.

²⁴Ibid., p. 139.

²⁵Ibid.

Cornwall School may be obtained from the following: Deacon Henry Hart of Goshen was the farm superintendent and Jonathan Baldwin taught blacksmithing and coppering.²⁶ In addition to these practical skills, the boys were taught reading, spelling, penmanship, grammar, arithmetic and religious education in the form of the Westminster Catechism. The various pupils seemed to have been given a degree of freedom in the choice of their subjects: John Homer Prentice studied divinity; John Wisidall studied farming; Henry Opukahaia was learning Hebrew and Geometry; Henry Tahiti was an apprentice at the printing trade; George Kaumualii studied Hawaiian and was reported to have calculated an eclipse; David Brown studied Hebrew and divinity and helped Pickering prepare a Cherokee grammar.²⁷ In the third year of the school, the more advanced students were having lessons in Latin, Greek, Rhetoric, Navigation, Surveying, Astronomy, and Theology.²⁸ Some understanding of the cosmopolitan nature of this educational experiment may be gained from a look at the program held at examination time during the fourth year of the school:²⁹

²⁶Ibid., p. 140.

²⁷Ibid., p. 147.

²⁸Ibid., p. 141.

²⁹Ibid.

Examination Time

1. Declamation in English	John Ridge	Cherokee
2. Declamation in English	Elias Boudinot	Cherokee
3. Declamation in French	S. Annance	Canadian
4. Declamation in English	Jas. Ely	Anglo-American
5. Declamation in Otaheite	S. Poopoone	Otaheitan
6. Declamation in Malay	A. Krygsman	Malay
7. Declamation in Owhyhee	G. Sandwich	Owhyhean
8. Declamation in Owhyhee	S. P. Capoo	Owhyhean
9. Declamation in Owhyhee	J. Irepoah	Owhyhean
10. Declamation in Owhyhee	R. Kriouloo	Owhyhean
11. Declamation in Stockbridge	Jno. Newcomb	Stockbridge
12. Declamation in Stockbridge	John Checks	Stockbridge
13. Declamation in Owhyhee	William Kummoolah	Owhyhean
14. Dialogue, The Cherokee Council (respecting the removal of the tribe to the West).		

The Cornwall Foreign Mission School became an East-West Center in the field of education approximately one-hundred forty years before the concept was re-introduced into the field of higher education by Senator Fullbright, the late President John F. Kennedy and others. The opportunity for pupil-teacher interaction and for students to come together from many different countries representing a variety of cultures and languages, may have resulted in a cultural exchange unique in the history of American education.

What insights concerning man, his language, and his culture developed as an outgrowth of these educational experiences? Henry Opukahaia, early in his educational progress, became aware that Hebrew was easier for him to learn than English, that certain sounds in American speech were more difficult to articulate than others; and

that Hawaiian was not the only language in the world without an alphabet.

In A Narrative of Five Youths from the Sandwich Islands Now Receiving An Education in this Country, there are references to some of Henry's intellectual pursuits. "He has studied one book of Euclid's Elements of Geometry; and by his own exertions, without any regular instructor, has acquired considerable knowledge of the Hebrew Bible, and translated portions of it into his language."³⁰ As early as 1814, while living with Reverend Harvey of Goshen, Henry Opukahaia was occupied "making a kind of spelling-book, taking the English alphabet and giving different names and different sounds, for [the Hawaiian] language was not [a] written language. . . . I spent some time making a kind of spelling-book, dictionary, grammar, etc."³¹ He also had the additional experience of teaching Thomas Hopu the Hawaiian language, since Thomas, an Hawaiian by birth, had been away from Hawaiian-speaking people for so long that he had forgotten his native language.

³⁰Henry Opukahaia, A Narrative of Five Youth From the Sandwich Islands Now Receiving An Education in this Country (New York: Printed by J. Seymour, 1816), p. 11.

³¹Henry Obookiah [Opukahaia], Memoirs of Henry Obookiah, A Native of Owhyhee [Hawaii] and a Member of the Foreign Mission School; Who Died at Cornwall, Connecticut February 17, 1818 Aged 26 Years (New Haven: The Religious Intelligencer, 1818), p. 41.

Herman Daggett in a letter to the American Board, dated, Cornwall, September 12, 1819, wrote that

Some of the students from Owhyhee [Hawaii] helped Mr. Daggett prepare a book to be used in the mission work in Owhyhee. The book consisted of a spelling department, numerals to 1,000, and the following translations: Short and Easy Sentences, Account of Obookiah [Opukahaia], Short Account of Creation; First Chapter of Genesis, Parable of the Prodigal Son, The Ten Commandments, and The Lord's Prayer.³²

Henry may have contributed to this, along with some of the other students from Hawaii.

Henry Opukahaia, George P. Kaumualii, and John Honoree, were together at the Cornwall Mission School between 1817 and 1819 and had ample opportunity to exchange information concerning their experiences with English and Hawaiian. Henry had written his grammar entitled "A Short Elementary Grammer Of The Owhihe Language To Which Is Added A Large Vocabulary In English and Owhihe"³³(see Figures 6 and 7). These students were wrestling with problems of applied linguistics far beyond their level of training. For this reason, what they were able to attain in so short a time is all the more remarkable.

³²Letter of Herman Daggett to the Mission Board, Cornwall, Conn., September 1, 1819 (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii).

³³Henry Opukahaia, "A Short Elementary Grammar Of The Owhihe Language To Which Is Added A Large Vocabulary In English And Owhihe" (U. S. in Hawaiian Historical Society Library, Opukahaia, Honolulu, Hawaii).

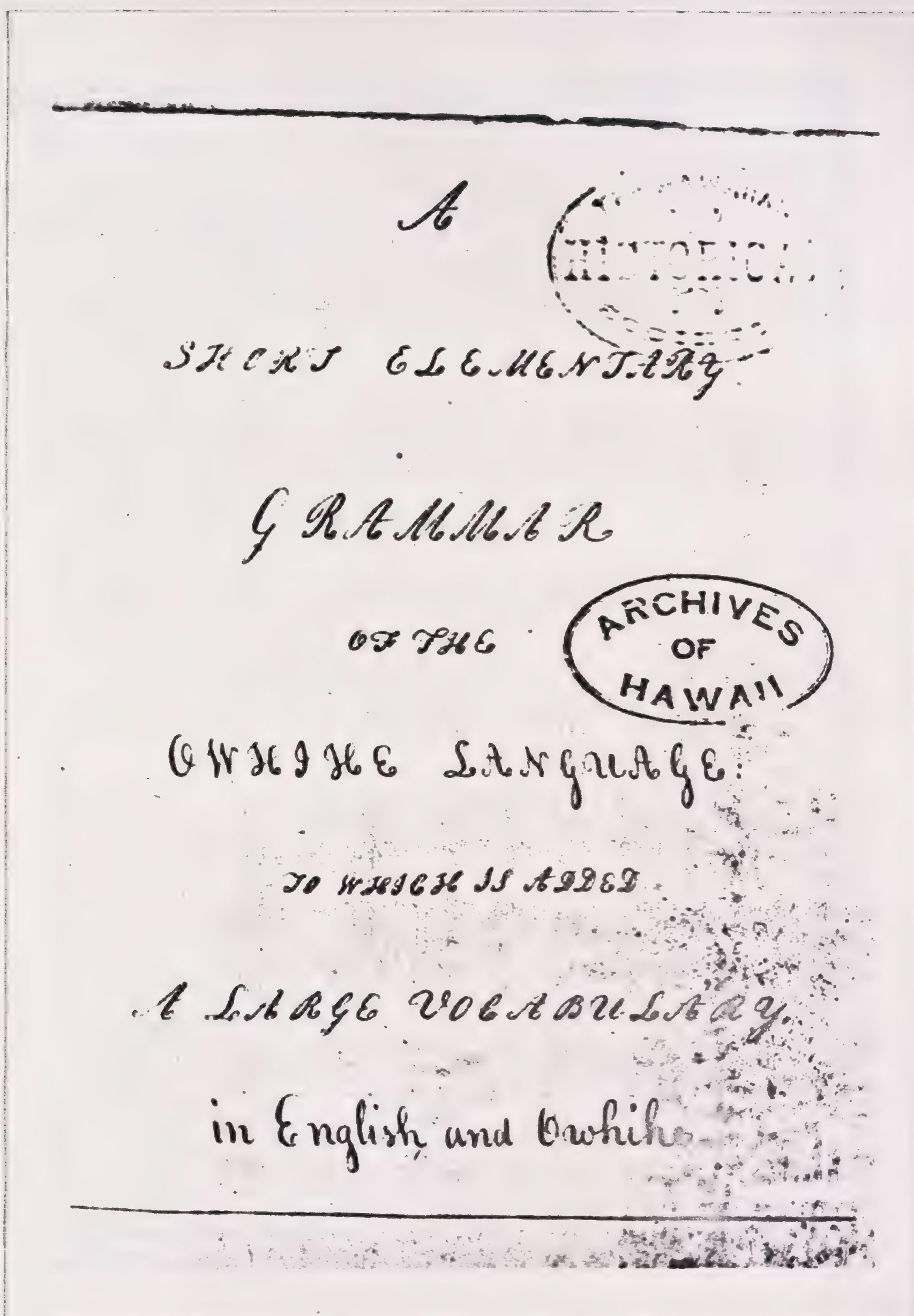


Fig. 6. Title page from what is reputed to be Henry Opukahaia's grammar.

Opukahaia must have learned from the Amerindian pupils at Cornwall that the task of adapting an orthographic system to the unwritten languages of North American Indian tribes was still in process. However, he could not have known that some of the pupils with whom he was acquainted at Cornwall and elsewhere in New England, would play significant roles in adapting alphabets to several of the languages of North American Indian nations. McKee Folsom, elder brother of Israel Folsom, helped Mr. Wright as interpreter and he or his brother helped Mr. Byington "fix" a Choctaw alphabet.³⁴

Prior to his untimely death, February 17, 1818, Henry Opukahaia carried the story of the people of the Hawaiian Kingdom and their great need to the congregations in churches across New England. One of Henry's prayers epitomizes the simple message this Hawaiian boy must have preached wherever he was invited to speak.

Great and eternal God-make heaven-make earth-make everything. Have mercy on me. Make me understand the Bible-make me good-great God have mercy on Thomas-make him good-make Thomas and me go back Owhyhee-tell folks in Owhyhee about Heaven-about Hell-God make all people good everywhere-great God have mercy on college.³⁵

³⁴Starr, op. cit., p. 148.

³⁵Henry Opukahaia, A Narrative of Five Youth from the Sandwich Islands Obookiah, Hopoo, Tennooe, Honoore, and Prince Tamoree (New York: Printed by J. Seymour, 1816), p. 12.

Hiram Bingham, who was teaching in Goshen, visited the school in its third year, 1819, and decided to go to Hawaii as a missionary, as Samuel Ruggles, a pupil, had also determined to do. On September 29, most of the boys attended the ordination of Bingham and Thurston as missionaries to Hawaii.³⁶ On October 16 Thomas Hopu spoke in English at the Park Street Church in Boston, and addressed his fellow Hawaiians present in their own language, and on October 23 made a farewell address as the first missionaries to Hawaii embarked from the long wharf.³⁷

John Honolii

An estimate of the influence that this one school in Cornwall had on subsequent events across the Pacific, may be gained by tracing the lives of several of these Hawaiian boys. John Honolii arrived as a sailor in Boston, Massachusetts, in 1815, was cared for in New Haven, North Guilford, and Morris, and attended the Cornwall Foreign Mission School, 1817-1819. John returned to Hawaii on the Thaddeus in 1819, and was an assistant missionary and teacher for ten years. His portrait by Professor Morse was engraved with others and published in A Narrative of Five

³⁶Starr, op. cit., p. 141.

³⁷Ibid.

Youth from the Sandwich Islands.³⁸

Thomas Hopu

Thomas Hopu who arrived with Henry Opukahaia in 1809, served on American privateers during the War of 1812. He joined Opukahaia at Goshen and was at South Canaan with Prentice and at the Cornwall School from 1817-1819. He then returned to Hawaii where he taught and interpreted for fifteen years until 1839. Thomas, who earned the title of "the faithful Hopu", was reputed to have walked across the island of Hawaii carrying supplies to Samuel Ruggles when he was in need of them.³⁹ Hopu's marriage to Henrieta Halekii was the first Christian marriage in the islands. Kamehameha II, gave him house and land to have him near at hand, for Hopu and Honolii were his only trusted interpreters.

George Prince Kaumualii

George Prince Kaumualii was sent at the age of six by his father Kaumualii, King of Kauai, to America to be educated. He served on the United States' ships Enterprise and Guerriere during the War Of 1812, at which time he was

³⁸Ibid., p. 146.

³⁹Ibid.

wounded in the line of duty. Returning to Hawaii in 1819, he headed a rebellion against Kamehameha II, was captured and held until he died in an influenza epidemic in 1826.⁴⁰

William Kamahoula and John Eliot Phelps Kalaulana

William Kamahoula helped to start the mission at Lahaina, Maui, in the Hawaiian Islands, while John Eliot Phelps Kalaulana returned to Hawaii in 1827 where he helped Dr. Judd in his practice and taught school.⁴¹

Richard Kalaiaula and George Sandwich Nahemah-hama

Richard Kalaiaula [Karaiaulu] returning to Hawaii in 1822, was a teacher and printer for some ten years.⁴² George Sandwich Nahemah-hama spent twelve years in school in New England, and then returned to Hawaii in 1821 and superintended schools there.⁴³

Robert Hawaii

Robert Hawaii returned home from New England in 1823 where he was a preacher and a teacher at the school attended

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Ibid.

⁴³ Ibid.

by Princess Nahienaena, the King's sister. He married the princess's friend Harieta Keopoula, who joined the Lahaina church with the Princess in 1827.⁴⁴

Henry Opukahaia's wish that "one good man" would go to Hawaii and help his people certainly came true in the form of the Brig Thaddeus carrying Rev. Asa Thurston, and Rev. Hiram Bingham, ordained missionaries, their wives, in addition to Daniel Chamberlain, Thomas Holmes, Samuel Whitney, Samuel Ruggles, Elisha Loomis, and John Honolii, Thomas Hopu, William Kanui, and George P. Kaumualii.

⁴⁴Ibid., p. 147.

CHAPTER III

THE COMING OF THE MISSIONARIES

An Historical Perspective

The political, social, and religious revolutions taking place in the Hawaiian Kingdom are brought into sharp focus in this chapter in order to gain some insight concerning the historical antecedents to the events of the 1820's. Any number of sources are available to the student of Hawaiian history, whereby documentation of the more salient events is possible.

Archibald Menzies reported that the island of Molokai was in a state of great confusion in consequence of its being the general rendezvous for forces from Oahu and Kauai, that were preparing to wage war against Hawaii.¹ In February, 1793, while the expedition was sailing along the northeast coast of Hawaii within two or three miles of the shore, it was learned that Kamehameha I had decreed that hogs and other refreshments of the island were prohibited from being disposed of, under penalty of death, to European

¹George Vancouver, A Voyage of Discovery to the North Pacific Ocean and Round the World (London: Printed for G. G. and J. Robinson, Paternoster-Row; and J. Edwards, Pall-Mall, 1798), Vol. I., Book the Second, Chapter I, p. 156.

or American visitors for any commodities whatever other than arms and ammunition.²

The journal of Henry Opukahaia leaves an indelible picture of the wars between the chiefs of rival districts and the extermination of whole families for political expediency.³ That the intercourse with Europeans had bred deep-seated feelings of insecurity on the part of the Hawaiians in a rapidly changing Pacific world, may be interpreted from the actions of King Kamehameha I. He assembled, on board the Discovery the high chiefs of the various districts of the island of Hawaii for the purpose of formally ceding and surrendering it to Vancouver "for His Britannic Majesty, his heirs and successors", on February 25, 1794. The whole party declared their consent by saying that they were no longer "tanata no Owhyhee" but "tanata no Britanee", [no longer subjects of Hawaii, but subjects of Britain].⁴ Whatever Kamehameha hoped to gain from such an action, he succeeded in advertising to the world that the leaders of the Kingdom of Hawaii welcomed the era of

²Ibid., p. 110, Vol. II, Book the Third, Chapter V.

³Edwin Wells Dwight, Memoir of Henry Obookiah, A Native of the Sandwich Islands Who Died at Cornwall, Connecticut February 17, 1818, Aged 26 (New York: American Tract Society, 150 Nassau-Street), Chapter I, p. 1.

⁴Vancouver, op. cit., Vol. III, Book the Fifth, Chapter II, p. 54.

cultural diffusion which was already upon them. Hawaii had entered a period of participation in international politics where Europe, Asia, and North America were concerned. The Hawaiian was now in a position to compare all aspects of his own culture with the foreign cultures with which he was coming into contact.

On the eve of the arrival of the first missionary company, the manifestations of deep-seated changes in the fabric of island culture were being felt at every level of society. The Loomis journal discloses some information concerning Kamehameha I and his little-known reactions about the changes taking place in pre-missionary Hawaii. Captain Joseph Banks, a native, said he was present when Kamehameha I died, and heard him earnestly request an American gentleman attending him to tell him all about the Christian religion. Captain Banks added, "he no say anything about it", because the gentleman had not read the Bible himself and was therefore unprepared to answer the King's most urgent questions concerning Christianity.⁵ Kamehameha I died on May 8, 1819 at Kailua, Kona, Hawaii and was succeeded by his son Liholiho as Kamehameha II. It is known that during the remainder of this year Liholiho, Kaahumanu,

⁵"Elisha and Maria Loomis Journal, October 23, 1819 to November 11, 1820" [Handwritten copy by Albertine Loomis], (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii), p. 146.

Keopuolani, and many of the highest chiefs frequently and openly broke the kapu (prohibition) of men and women eating together. In October of this same year the abolition of the kapu was formally proclaimed throughout the Hawaiian Kingdom; the act being referred to as ainoa (to eat without the observance of taboos).⁶

There were, as might be expected, differences of opinion among the alii (nobles) concerning this proclamation. In November of 1819, Kekuaokalani, son of Keliimaikai and cousin of Liholiho, revolted in defense of the kapu. In January 1820, Kekuaokalani was defeated by the forces of Liholiho at the Battle of Kuamoo, North Kona, Hawaii.⁷ The many influences exerting pressures for change in the basic structure of the society had been evident for a number of years.

In the relatively short span between November, 1819 and March, 1820, two cataclysmic revolutions occurred: following the abolition of the kapu system, there was a period of general destruction and burning of the heiaus (temples) and the idols of wood and stone. By the time the brig Thaddeus, under the command of Captain Hunnewell, came

⁶Abraham Fornander makes this clear in his "Chronological Table of Events in Hawaiian History" in H. R. Hitchcock's English-Hawaiian Dictionary (Lahainaluna: June, 1887), p. 245.

⁷Ibid., p. 246.

to anchor April 5 at Kailua, Kona; what the mission from New England would have committed themselves to accomplishing, had already been effected before a single one of that first group set foot on the shores of the Hawaiian Islands.

Arrival Of The Brig Thaddeus

Some of the first words in the Loomis Journal express the excitement engendered by the view of a mid-Pacific island group. Written under the date March 30, 1820, were the words "This morning at two o'clock our ears were saluted with the joyful cry of 'Land O!' The mountains of Owhyhee (Hawaii) were discovered at the distance of thirty or forty miles."⁸ These mountains would have been the volcanic peaks of Mauna Loa (Long Mountain), 13,680 feet elevation, and Mauna Kea (White Mountain), 13,784 feet elevation.

Kalanimoku, the prime minister, and his company visited the ship and went on board with the intention of accompanying the missionary group to Kailua Bay and the residence of Liholiho.⁹ It must have been a dramatic scene on the deck of the Thaddeus as she sailed along the Kona Coast with the prime minister, a number of high chiefs and their wives,

⁸"Elisha and Maria Loomis Journal, October 23, 1819 to November 11, 1820", op. cit., p. 83.

⁹"Journal of the Mission on Board the Brig Thaddeus", [handwritten copy of the original] (MS in Houghton Library, Harvard University), ABC:19.1, p. 26.

the returning Hawaiian boys George Kaumualii, Thomas Hopu, John Honolii, and William Kanui, and the entire missionary company, attending Sunday service in the shade of the luffing sails. Bingham preached the sermon from Isaiah 42:4, "The isles shall wait for His law." The islanders delighted in listening to the singing of the hymns.¹⁰

The Hawaiians were intrigued by their first close acquaintance with haole (white) women, and must have had many questions concerning the foreigners who were not anxious to trade, repair their ship, or replenish their stores, and who refused to begin even the lightest labor on the special day of their God. At sunset, the natives spread their sleeping mats on the deck and slept as the brig ghosted along through the night.

By Monday morning they were approaching Kailua Bay and the residence of Liholiho was in sight. At ten o'clock on the morning of April 4, one-hundred and sixty days from Boston, the anchor of the Thaddeus was thrown over the side.¹¹ Kalanimoku, having received a summons from the King went ashore. Soon after, Captain Hunnewell, Brothers Bingham, and Thurston, and Thomas Hopu went to acquaint Liholiho with the exact nature of their enterprise and gain

¹⁰Ibid., p. 36.

¹¹Ibid., p. 38.

his consent to land and proceed with the work of the Mission. From the deck of the Thaddeus the company of missionaries could see the King bathing in the surf with one of his wives and his mother. The King was distinguished by the beads he wore around his neck.¹²

John Adams, one of the distinguished chiefs who seemed to have acquired a speaking knowledge of English, offered the landing party his own home for their comfort, and afterward introduced them to John Young, a Britisher who held the rank of chief and was acting secretary to Liholiho. In this way the missionaries gained an audience with the King and were able to present their credentials in the form of letters from Dr. Worcester of the American Board and from Captain Reynolds. These documents were interpreted to His Majesty by Mr. Young and Thomas Hopu. It was in this manner that the purpose of the Mission to the Sandwich Islands was made known to the Kamehameha II. A gift of a spyglass was presented to the King on behalf of the American Board of Commissioners for Foreign Missions. The King seemed pleased with the gift but was in no hurry to give his answer to the official request of the Board to allow the mission to begin its work in these islands.¹³

¹²Ibid.

¹³Ibid.

Those Hawaiians who spoke at the court of Kamehameha II, on the subject of the missionary petition used the word "maika'i", which the missionaries had learned meant "It is good".¹⁴ The missionary delegation was feasted at the King's table of fish and poi. These were exotic dishes for New Englanders who described the poi as being like cold pudding made from taro.

The negotiations continued on April 5 and the question arose concerning how Great Britain would view the American missionary interest in Hawaii. The King was assured that there was no competition between the American missionaries and those of Great Britain, and that the cooperative spirit was evidenced by the fact that several missionary stations were occupied by American missionaries in British territories.¹⁵ Following this audience with the royal court, the missionary company was received by the "late high priest" and when Bingham was introduced, the priest was delighted with the opportunity of meeting a "brother priest from America".¹⁶

The missionaries were pleasantly surprised at hearing

¹⁴According to Pukui and Elbert in Hawaiian-English Dictionary, maika'i is defined as meaning "good", "well", "fine", "excellent", etc., p. 206.

¹⁵"Journal of the Mission on Board the Brig Thaddeus", op. cit., p. 40.

¹⁶Ibid.

this kahuna professing friendship toward them, since they had supposed that all of the Hawaiian priests would be their antagonists. The kahuna related to the missionaries how five months earlier the King had consulted with him concerning the breaking of the ancient taboo system asking whether he thought it would be a good or bad action; the answer given the King was maika'i (it would be good). With the consent of Liholiho, he had renounced idolatry and had put the torch to the heiaus and the wooden gods of the temples.

It seemed a miracle to the missionaries that these events had occurred prior to their arrival, and that advocates for their cause had been found in unsuspected places. Kamamalu, the favorite wife of Liholiho, expressed her decided opinion that it would be good for the missionaries to settle in the Islands and advanced a formal plea that they be allowed to do so. The King, knowing of her warm attachment to him and being in a playful mood, argued that if he admitted the mission to the Kingdom and gave it his royal patronage he would be allowed but one wife. This would mean that he would have no need for her. As a form of gentle reproof, she rose from the mat on which they reclined and attempted to withdraw. The King detained his favorite and reacted to the play of words and emotions in

"fine good humor".¹⁷

On the sixth of April negotiations continued as the royal family boarded the brig Thaddeus to dine. The King wore a malo, a green silken scarf upon his shoulders, a bead lei around his neck and a wreath for a crown.¹⁸ He and his party were then introduced to the women of the missionary group, the first American ladies these Hawaiians had ever seen. The King was seated at the head of the table, grace being said before the feast began. As the discussions continued the King was gratified to learn how many useful arts the missionary group understood. He was disappointed that there was not a carpenter aboard, since some of his vessels were in need of repair. Although Liholiho seemed well-disposed toward granting the mission permission to land and settle, he stipulated that they must not send for any more missionaries to join the first group. This cautious attitude may have been engendered by the size of this first group, and the fear that they might become burdensome or dangerous.¹⁹

Having gone ashore, the missionary delegation withdrew from the presence of the King and his court to allow them

¹⁷Ibid., p. 41.

¹⁸Ibid.

¹⁹Ibid., p. 47.

free discussion of all aspects of landing and settling. Dr. Holman and Brother Thurston went back to shore to learn the results of the deliberations and returned with the news that two of the missionaries together with their wives and two of the native youths, would remain on Hawaii. They would be furnished with houses, water, fuel, and fresh provisions at public expense. They would be allowed to engage in their missionary work under royal protection and patronage.²⁰

Loomis, Printer In Paradise

Elisha Loomis was a printer by trade and a Christian missionary by faith, who had married Maria Sartwell and sailed to the Sandwich Islands on the Thaddeus with the rest of the first company of missionaries. The journals left by Maria and Elisha Loomis present an intimate picture of their reactions to Hawaii and Hawaii's reactions to them, during those crucial years from 1820 to 1826.²¹ This journal begins with the simple statement, "Here begins the journal of Elisha and Maria [Loomis], October 23, 1819 to

²⁰Ibid.

²¹"Elisha and Maria Loomis Journal, October 23, 1819 to November 11, 1820", op. cit.

November 11, 1820."²²

The specific purpose of the mission to the Sandwich Islands, was to teach the Hawaiians the Gospel; in order to realize this goal it was necessary to teach the people how to read in their own language. Since there was no written language, the first task of the missionary workers was to adapt an alphabet to the spoken language and then to print translations of the religious materials available. These translations were then to be distributed to the people, to be used in conducting the religious services, and later to be used in the newly established schools.

It was fortuitous that certain members of the nobility were accepting of the innovations introduced by the missionaries. King Liholiho (Kamehameha II) was well disposed toward the missionaries, as demonstrated by a favorite phrase which he used in the presence of Elisha Loomis, "nooe nooe miti, nooe allohah Amerika", which translated into the revised orthographic system of 1826 would read, "nui nui maika'i, nui aloha Amerika," (Very good, much

²²This copy from which these facts have been taken, was prepared by Albertine Loomis from the original received September 30, 1957 by the Hawaiian Mission Children's Society Library. Because of the fragile state of the original journal, this copy was used for research purposes, although this writer had access to the original which reads, "October 23, 1819, Elisha Loomis Journal".

love [affection] for America).²³ King Kaumualii of Kauai was also receptive to the new teachings, being pleased with the Bible sent him by the American Bible Society and anxious to understand its contents. When select portions of it were read in English and interpreted to him, he told the brethren (missionaries) that they must make haste and learn the Hawaiian language fast, so that they could tell him all about the Good Book. The King's desire to learn to read was so strong that he indicated to the missionaries that he was willing to devote ten years to its accomplishment, and from that day on "lest he should lose time while bathing", the King of Kauai took his Bible with him and studied while in the water. He told the missionaries that if they would come and settle on Kauai, he would build them houses and furnish them with lands and that all of his people would observe the Sabbath and worship the Christian God.²⁴

The palapala (printed and/or written word) held great fascination for the alii (nobility) who came into close contact with printed Bibles and the mysteries of penmanship. The high chiefs and their wives were so eager for the new skills of reading and writing that they learned these

²³Ibid., p. 138.

²⁴Ibid.

skills with remarkable facility. Elisha Loomis writes that the King of Hawaii (Liholiho), was able to read "intelligibly" in the New Testament.²⁵ This would mean that he had learned to read English in about three and a half months. While the alii were eager to master these new skills, they wished to do so to the exclusion of the common people. For instance, in July, 1820, Maria Loomis indicated that the King objected to the missionaries teaching any to read "except chiefs and the families of white men."²⁶ This tendency was later relaxed under pressure exerted by the missionaries. However, the attitude of the chiefs, concerning the question of equal educational opportunity, created cross-currents producing stress in the relations between the missionaries and those of high rank.

In August, 1820, Elisha Loomis mentioned in his journal that he "employed" the day putting together the Ramage Press, and found it was in good order and "but little damaged by the rough usage which it had received on the voyage".²⁷ He wished to prepare the press for printing a few alphabets for the use of the scholars.²⁸ What "alphabets" are

²⁵Ibid., p. 152.

²⁶Ibid., p. 151.

²⁷Ibid., p. 164.

²⁸Ibid.

referred to here? This whole matter is particularly interesting from the standpoint that January 7, 1822 is traditionally celebrated as the date of the first printing in the Hawaiian Islands. Is it possible that Mr. Loomis ran off several copies of an alphabet as early as August, 1820? At about the same time, another entry indicates that the government had requested that some printing be done, but that this request could not be fulfilled because the press was not ready for use.²⁹

Throughout the Hawaiian Islands, one of the most important topics of conversation concerned reading and writing. Shortly after assembling the press, Mr. Loomis sailed to Lahaina, Maui where he visited Krymokoo (Kalanimoku), informing him that he had come in compliance with his request to instruct him and his family in the skills of reading and writing. His answer of "approbation was contained in that short and pleasant word mite [maika'i, (good)]".³⁰ The Loomises received word in August of the reception of the missionaries on the island of Kauai. The brethren had arrived after a twenty-hour passage and were welcomed warmly by the King and Queen, who were extremely attentive to their group and immediately

²⁹Ibid., p. 172.

³⁰Ibid., p. 176.

began to receive instruction in reading and writing.³¹ A letter from the Queen to Mrs. Bishop was transcribed by Mrs. Loomis and is included in its entirety.

"Madam, I feel glad that your good women came here to help me. I want to learn to sew and read and do like them. I am very glad they here. I take good care of them they my children I give them eat and drink. I love them much. I never see white wihena [women] before she mitie [good]. I write letters home to America to their mothers now I be their mothers. I be glad you do good to all the islands, except this from Queen Charlotte Tapooe."³²

There is yet another skein to unravel of this history related to the work of the missionaries in Hawaii. The London Missionary Society had sent William Ellis, among others, to Tahiti and it is in this island group the narrative will continue. In order to appreciate fully the role Ellis was to play in the choice of an alphabet for Hawaiian, his work in Tahiti must be surveyed.

William Ellis of Tahiti

William Ellis's experiences in Tahiti prior to his arrival in Hawaii February 5, 1822 were to enable him to render valuable service in cooperation with the American missionaries in the Sandwich Islands.³³ The first written

³¹Ibid., p. 185.

³²Ibid., pp. 186-187.

³³"Extractions from the Journal of Mr. William Ellis,

Polynesian language was Tahitian. In acquiring a knowledge of it and in reducing it to a regular orthographic system, the missionaries in Tahiti proceeded without the advantages of the previous experiences of others.

In adapting letters to its sounds, forming its orthography, and exhibiting the vernacular tongue in writing to the people, presenting to the eye that which had before been applied only to the ear, and thus furnishing a vehicle by which light and knowledge might be conveyed through a new avenue to the mind, they were unaided by the labours of any who had preceded them, and were therefore pioneers of those who might follow.³⁴

Ellis seemed to defend the imperfect work of himself and his colleagues by stating that the Tahitian alphabet was the basis for the subsequent alphabets elsewhere in Polynesia. In addition to this, the ease with which it was acquired, and the facility with which it was used by the natives, seemed to Ellis to be evidences of its accuracy and its utility.³⁵ Ellis thought that though the missionaries in Tahiti had been charged with affectation in their orthography, they had given their full attention to attaining simplicity, and perspicuity in the alphabet.

Late Missionary at Oahu" in Missionary Society Transactions (London: July 1826), pp. 193-209.

³⁴Ellis, Polynesian Researches During a Residence of Nearly Six Years in the South Seas Islands (London: Fisher, Son, and Jackson, Newgate Street, 1829), Vol. I, p. 75.

³⁵Ibid., p. 76.

Ellis stated, "the declaration and the pronunciation of the natives formed their [the missionaries in Tahiti] only rule in fixing the spelling of proper nouns, as well as other parts of the language."³⁶ Interpreting this, it may be concluded that these members of the mission based their orthographic adaptation on as careful a study of the phonological aspects of the language as their knowledge and the use of native informants allowed. Ellis further indicated that the missionary workers

. . . aimed at precision, and having adopted the English character, affixed to each letter a distinct and invariable sound. The letters of each word constitute the word, so that a person pronouncing the letters used in spelling a word, would, in fact, pronounce the word itself. Pursuing this plan, they were under the necessity of presenting to the natives a mode of spelling different from that which had been given to Europeans in the narratives of early voyages.³⁷

Therefore, they reluctantly abandoned the orthographic systems which had been used in the logs of the early voyages. This reluctance is understandable considering that these written accounts of early voyages containing vocabularies and other references to the spoken language of the Tahitians, represented the only known authoritative writings on the subject at that time. These men of the London Missionary Society certainly may have had access to

³⁶Ibid.

³⁷Ibid.

the published accounts of the expeditions of Captain James Cook and those of George Vancouver.

Ellis recorded his analysis of Tahitian without reference to the professional nomenclature used in today's linguistic analyses, e.g. phonemes, morphemes, orthographies, and graphemes; yet his meaning is clear, the descriptions of the process are vivid. Table 22 summarizes Ellis's understanding of the phonology of Tahitian.

The different Polynesian dialects abound in vowel sounds perhaps above any other language; they have also another striking peculiarity, that of rejecting all double consonants, possessing invariably vowel terminations, both of their syllables and words. Every final vowel is therefore distinctly sounded. Several consonants [consonant phonemes] used in the English language do not exist in those of the Georgian and Society Islands. There is no sibilant, or hissing sound: s and c, and the corresponding letters, are therefore unnecessary. The consonants that are used, retain the sound usually attached to them in English.³⁸

Ellis recorded some of the "words most frequently used in the present work". The chart constructed by him presented two columns, the first of which displayed the words in the

proper syllabic divisions observed by the people, while the second exhibited the native "orthoepy" [correct pronunciation] by employing those letters which, according to their general use in the English language, would secure as nearly as

³⁸Ibid., p. 77.

TABLE 22

VOWEL AND CONSONANT PHONEMES OF TAHITIAN^a

Analysis Suggested by Hervey		Pronunciation Key from Ellis		
Graphemes	Phonemes	English Key Words	Tahitian Key Words	Phonic Pronunciation Key
a	a	father	Ta-hi-ti	Tah-he-te
e	e	fate	Pomare	Po-mah-ray
i	i	marine	A-tu-i	Ah-too-e
o	o	no	O-po-a	O-po-ah
u	u	root	Hu-a-hi-ne	Hoo-ah-he-nay
b	b	boy	Bo-ra-bo-ra	Bo-rah-bo-rah
d	d	day	I-di-a	E-dee-ah
f	f	fun	Fa-re	Fah-ray
g	g	go	Ra-ro-ton-ga	Rah-ro-ton-ga
h	h	hat	Hu-a-hi-ne	Hoo-ah-he-nay
m	m	man	Mau-ru-a	Mou-roo-ah
n	n	no	Au-na	Ou-nah
p	p	pay	PO-ma-re	Poh-ma-ray
r	r	red	Ra-pa	Rah-pah
t	t	take	Tu-bu-ai	Too-boo-eye
v	v	vase	Rai-va-vai	Ry-vah-vye
Diphthongal Forms				
ai	aI	wine	Mai	Mye

^aIbid., pp. 77-78.

possible the accurate pronunciation of the native words.³⁹

Table 22 is not the original one developed by Ellis, but a composite. This writer has added the grapheme and phoneme columns; however the list of English key words for the consonants, the columns of Tahitian words, and the pronunciation key are directly from the work of William Ellis. In explaining the pronunciation key he has said that the <h> is placed after the <a> only to secure to that vowel the uniform sound of |a| as in "father", or in the interjection "ah" or "aha"; that the <y> is placed after the <a> "to secure" for the Tahitian vowel grapheme <e>, the sound of [eI] in hay or day.⁴⁰ This tendency reflects the strong influence of the English orthographic system upon Ellis. Even a cursory knowledge of French or any Romance language, would have given him the concepts for a more "phonetic" orthographic system than the one he used.

An Alphabet for the Tahitians

On the sixth of March 1805, the missionaries in Tahiti adopted their alphabet for the Tahitian language. The Roman characters were used, sounds in the Tahitian language associated with them, and a Tahitian name given to

³⁹Ibid.

⁴⁰Ibid.

each for the purpose of facilitating the introduction of the alphabet among the people. It was, however, a long time before any of the natives could be induced to learn the letters.⁴¹ This situation in Tahiti was in dramatic contrast to the reactions of the Hawaiians to the introduction of reading and writing.

In the course of time the process of cultural diffusion seemed to have gained considerable momentum. In October, 1806, Davies, one of the missionary company, began instruction with the native boys attached to their houses, and met with them three nights a week to instruct them in the catechism and teach them to read the few specimens of writing they had been able to prepare. Others of the mission were requested to draw up a brief summary of the leading events and a short account of the principal persons mentioned in the Old Testament, in the form of a scriptural history. During the year 1807, a spelling book which Davies had composed and used, was sent to England to be printed and was shipped back to Tahiti for the use of the schools.

⁴¹Ibid., p. 130.

⁴²Ibid.

Early Schools in Tahiti

Ellis described a school room in use in the year 1812 at Eimeo: the floor had two coverings, the first of sand and the second of long dry grass. A rustic sort of table or desk, about three or four feet high, stood on one side.

The whole of the building was filled with low forms, on which the natives were sitting; while on one side I saw one or two forms longer and broader than the rest, with small ledges on the sides, filled with sand, for the purpose of teaching writing, after the manner of the national schools in England.⁴³

As the Tahitians drew symbols in the sand of their improvised school room, they inadvertently re-enacted the evolution through which men in other parts of the world had passed in prior generations.

Tahitian Memory Books

A few copies of a spelling book printed in England had been taken to the islands in the year 1811. Some hundred copies of a smaller spelling book, and a brief summary of the Old and New Testament, the latter containing about seventy-five pages, had been printed at Port Jackson, and were in circulation, but many hundreds of the natives who had learned to read, were still destitute for a book. Others could repeat correctly, from memory, whole books,

⁴³Ibid., p. 155.

and were anxious for fresh ones whenever they were available. In this manner some men became walking libraries and could sit down whenever asked and recite that portion of the book desired by his listener, occasionally the whole book. In many families where all were readers there was but one book, while others had none. The people of the neighboring islands were in much greater need of printed material. Many people had written out an entire spelling book on sheets of writing paper; others who, unable to procure the precious paper, had prepared pieces of kapa cloth, and then with a reed dipped in red or purple dye, had written out the alphabet, and the spelling and reading lessons.⁴⁴

The First Printing In Tahiti

It was truly affecting to see many of them not with phylacteries, but with portions of scripture, or the texts they had heard preached from, written on scraps of paper, or fragments of cloth, preserved with care, and read till fixed in the memory of their possessors.⁴⁵

Ellis and his colleagues felt that this state of affairs made it imperative that a press be set to work as soon as possible. Pomare assisted in every way to hasten the erection of a building and the removal of the press

⁴⁴Ibid., p. 391.

⁴⁵Ibid.

itself and the types from Papetoai, where they had first been landed, to Afareaitu where the printing would be done. Upon his return to the other side of the island, Pomare asked that he be summoned whenever the work was to begin. In due time a letter was forwarded to the King and, in the afternoon of the appointed day, he came to the printing-office accompanied by a few favorite chiefs, and followed by a large "concourse" of people.⁴⁶

Soon after his arrival, I took the composing-stick in my hand, and observing Pomare looking with curious delight at the new and shining types, I asked him if he would like to put together the first AB or alphabet. His countenance was lighted up with evident satisfaction, as he answered in the affirmative. I then placed the composing-stick in his hands; he took the capital letters, one by one, out of their respective compartments, and, fixing them, concluded the alphabet. He put together the small letters in the same manner, and the few monosyllables composing the first page of the small spelling-book we afterwards added. He was delighted when he saw the first page complete, and appeared desirous to have it struck off at once; but when informed that it would not be printed till as many were composed as would fill a sheet, he requested that he might be sent for whenever it was ready. He visited us almost daily until the 30th [1817], when, having received intimation that it was ready for the press, he came, attended by only two of his favorite chiefs. They were, however, followed by a numerous train of his attendants, who had by some means heard that the work was about to commence. Crowds of the natives were already collected around the door, but they made way for him, and, after he and his two companions had been admitted, the door was closed, and the small window next the sea darkened, as he did not wish to be overlooked by the people on the

⁴⁶Ibid., p. 392.

outside. The king examined, with great minuteness and pleasure, the form as it lay on the press, and prepared to try to take off the first sheet ever printed in his dominions. Having been told how it was to be done, he jocosely charged his companions not to look very particularly at him, and not to laugh if he should not do it right. I put the printers' ink-ball into his hand, and directed him to strike it two or three times upon the face of the letters; this he did, and then placing a sheet of clean paper upon the parchment, I covered it down and, turning it under the press, directed the king to pull the handle. He did so, and when the paper was removed from beneath the press, and the covering lifted up, the chiefs and attendants rushed towards it, to see what effect the king's pressure had produced. When they beheld the letters black, and large, and well defined, there was one simultaneous expression of wonder and delight.⁴⁷

Pomare II was greatly surprised by two aspects of this spectacle. First of all, he was amazed that the paper pressed upon the print instead of the print upon the paper, as he had supposed.⁴⁸ The second revelation came when he found that, in sixteen pages of the spelling-book, there were more than five thousand of the letter <a>.⁴⁹ It was very natural that Pomare thought that the print would be pressed upon the paper, since he may have felt that printing on paper was analogous to printing the kapa designs, in which case the design block was pressed upon the cloth.

⁴⁷ Ibid.

⁴⁸ Ibid., p. 394.

⁴⁹ Ibid., p. 395.

The Arrival of Ellis in Hawaii

With these rich and varied experiences behind him, and with the ability to read, write, and speak Tahitian; Mr. William Ellis arrived at Oahu, Hawaii on February 5, 1822 and was greeted with "real" affection.

Mr. Loomis remarked in his journal of April 9, 1822, that Mr. Ellis had sailed from Tahiti with a missionary deputation from London.⁵⁰ On April 11, 1822 Loomis wrote that he "opened a letter from Ellis saying that he had arrived at Karakakua [Kealakekua], Hawaii."⁵¹

William Ellis was an exponent of the philosophy that the most expeditious way of bringing the word of God to the Tahitians or the Hawaiians was through the printed and spoken language of those people. In keeping with this general point of view, the following letter written by Ellis from Oahu on June 25, 1822, to Ruggles on Kauai, said ". . . let me encourage you my dear brother to press forward especially in the attainments of the language, an acquaintance of which will increase your usefulness ten-fold."⁵²

Ellis and his Tahitian friends must have given the work

⁵⁰Ibid., p. 83.

⁵¹Ibid.

⁵²Letter of William Ellis from Oahu, June 25, 1822, to Samuel Ruggles (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii).

of the New England missionaries considerable impetus in bringing the Christian philosophy to the Hawaiian people in their own tongue. Hiram Bingham indicated that Ellis preached to his Tahitian people at Honolulu in the Tahitian dialect.

They sung [sic] Tahitian hymns, in a manner gratifying and encouraging, and numbers of our people attended. He introduced into his discourses the changes required to make them intelligible to the Hawaiians, as well as to the Tahitians. This exercise facilitated our progress, as well as that of the Tahitians, in acquiring the use of the Hawaiian.⁵³

This record is in accord with comments made by Ellis in his Polynesian Researches to the effect that there were apparent similarities between Tahitian and Hawaiian. At the same time that Ellis was using a combination of Tahitian and Hawaiian in preaching to the Hawaiian people, Bingham was finding that he was able to address the congregation in the language of the country and that this feat was easier to perform because the Hawaiian language was found "to be favorable to short petitions, confessions, and ascriptions of praise and adoration."⁵⁴

It is a matter of historical record that Ellis lost no

⁵³Hiram Bingham, A Residence of Twenty-One Years in the Sandwich Islands Or The Civil, Religious, and Political History of Those Islands (New York: Sherman Converse, 1847), p. 162.

⁵⁴Ibid., p. 163.

time after his arrival in Hawaii translating a number of hymns into Hawaiian in cooperation with Hiram Bingham. Probably one of the first of these to be translated was "Isles of the South," which was sung at the departing of the first missionary company from New England on October 23, 1819.⁵⁵

In 1823 the press was put to work printing the first hymnbook in the Hawaiian language after careful preparation of the hymns by Bingham and Ellis. One of these original printings is in the American Board of Commissioners For Foreign Missions Collection at Houghton Library, Harvard University.

Hiram Bingham, Alphabet Maker

From an examination of "Spelling Book and Select Scriptures" it is possible to reconstruct the working alphabet in use by this student of Hawaiian at this particular period. This orthographic system is essentially the first worked out in Bingham's own handwriting found in the unpublished material entitled "Spelling Book and Select

⁵⁵Ellis, Na Himeni Hawaii He Me Ia Iehova (Oahu, Hawaii, n.p., 1823 in Houghton Library, Harvard University.)

TABLE 23

GRAPHEME-PHONEME RELATIONSHIP RECONSTRUCTION
 BASED ON THE SPELLING BOOK BY HIRAM BINGHAM

<u>Graphemes</u>	<u>Phonemes</u>
a	a
e	e
i	i
o	o
u	u
ou	o-u
oi	o-i
ai	a-i
au	a-u
oe	o-e
ae	a-e
ao	a-o
<hr/>	
h	h
k	k
l	l
m	m
n	n
p	p
r	r
t	t
v	v
w	w

Scriptures and Materials for Spelling Book."⁵⁶ The line drawn across the lower third of the sheet of paper seemed to indicate that the , <d>, <f>, <g>, <s>, and <z> were to be used when writing foreign words. These notes by Bingham may well have represented his earliest thoughts on

⁵⁶Bingham, "Spelling Book and Select Scriptures and Materials for Spelling Book." Manuscript prepared by Bingham, Oahu, Hawaii, 1822 (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii).

the subject of an alphabet. The following quotation of Hiram Bingham serves to clarify his philosophy so far as a choice of an alphabet for use in writing Hawaiian was concerned.

To make the spelling and reading of the language easy to the people, and convenient to all who use it, was a matter of great importance, almost indispensable to our success in raising the nation. It was, therefore, a part of our task to secure to the people a perfect alphabet, literal or syllabic, of all the sounds which were then in use, and which would need soon to come into use in the progress of the nation.⁵⁷

These words were prophetic when the sounds which would soon need to come into use were mentioned. Bingham must have known how many terms from the Christian religion would be introduced into the culture of the Hawaiians in a short span of time. How could these proper nouns be adapted to the phonology and orthography of the Hawaiian language? These new terms would include place names, proper nouns, the names of the books of the Bible as well as the names of foreign places throughout the world appearing with increasing frequency in the Hawaii of 1822. The following words (in Table 24) were included in the list in Bingham's notes.

Several words in this list have not been positively identified either because of uncertainty in reading the

⁵⁷Ibid., p. 18.

TABLE 24

PLACE NAMES SPELLED IN THE HAWAIIAN AND ENGLISH
ORTHOGRAPHIES

Place Names: Bingham's Hawaiian Spelling ^a	Place Names: Current English Spelling
Amerika	America
Afrika	Africa
Asia	Asia
Europa	Europe
Rusia	Russia
Beretania	Britain
Franea	France
Hipaniola	Hispanola
Itali	Italy
Judea	Judea
Benigale	Bengal
Tahiti	Tahiti
Nuiorika	New York
Benigala	Bengal
St. Peteroboro	St. Petersburg
Lonedona	London
Roma	Rome or Romans
Jerusalema	Jerusalem
Kalakuta	Calcutta
Kep Horn	Cape Horn

^aIbid., p. 4.

handwriting on a discolored, time-ravaged manuscript and/or failure to find the referent for the proper noun as rendered by Bingham. A second list, also found among his notes, included the most frequently used proper nouns from the Bible as Bingham spelled them in the newly adopted orthography. These pages clearly represented the first notes of a scholar working out the problems of an orthography for a language with a number of characteristics unique to the experience of a New Englander. In the case of Cape Horn,

Bingham wrote both words with closed syllables, although it is clear from a study of the other entries that he was making an effort to include only open-syllables. Table 25 displays Biblical names selected from Bingham's notes.

TABLE 25

BIBLICAL NAMES SPELLED IN HAWAIIAN AND ENGLISH
ORTHOGRAPHIES

Biblical Names: Bingham's Hawaiian Spelling ^a	Biblical Names: Current English Spelling
Davida	David
Iesu	Jesus
Kraist	Christ
Iaone	John
Mataio	Matthew
Luka	Luke
Paulo	Paul
Mose	Moses
Noa	Noah
Aberehama	Abraham
Isaka	Isaac
Jekoba	Jacob
Daniela	Daniel
Isaia	Isaiah

^aIbid.

The listing of some words more than once in the original manuscript may indicate variant spelling trials engaged in by Bingham as he pronounced the words himself and attempted to record the pronunciation he thought to be most consistent with the phonology of spoken Hawaiian as he perceived it. At other times it seems that the appearance of a particular word more than once in the list may have been

an attempt on the part of Bingham to test how the given word looked in written form in relation to how it was being pronounced on a trial basis.

Bingham was explicit in his own writing concerning the lack of an adequate model for either the spoken or the written language of the Hawaiians, feeling that those who had attempted to write the names and places in the Hawaiian Islands had materially failed even in the case of the most common terms.⁵⁹ No foreigner or native was able to illustrate or explain the peculiarities and intricacies of the language, according to Bingham.⁶⁰ This statement simply underscores the situation then as now, that men using a language in the marketplace seldom stop to speculate on the nature of that language, beyond whether it suffices the satisfaction of the most pressing of mundane needs.

Though we obtained a few words and phrases from William Moxley and others, we found the dialect in use by foreigners often materially misled us, so that none could be trusted as to accuracy, and it required time to detect and unlearn errors. In the oft' recurring names of the principal island, the largest village, and the king of the leeward islands, 'Owhyhee, Hanaroorah, and Tamoree', scarcely the sound of a single syllable was correctly expressed, either in writing or speaking, by voyagers or foreign residents. Had we therefore, followed the

⁵⁹Bingham, A Residence of Twenty-One Years in the Sandwich Islands or the Civil, Religious, and Political History of those Islands, op. cit., p. 153.

⁶⁰Ibid.

orthography of voyagers, or in adopting an alphabet, made a single vowel stand for as many sounds as in English, and several different vowels for the same sound, and given the consonants the ambiguity of our c, s, t, ch, gh, etc., it would have been extremely difficult, if not impracticable to induce the nation to become readers, in the course of a whole generation, even if we had been furnished with ample funds to sustain in boarding-schools, all who would devote their time and labor to study.⁶¹

What Reverend Bingham was saying was that the pronunciation of major place names and proper nouns differed widely among the persons he had used as informants. Had there been a linguistic geographer, these variations could have been plotted for the individual islands and for districts on the various islands. The second inescapable point was that Bingham wished to adapt an orthographic system to writing Hawaiian that would not have included the same ambiguities inherent in the English alphabet. As will be seen, this philosophy eventually pervaded the entire discussion among the missionaries as to which symbols they were to choose for the Hawaiian alphabet and which they were to delete. A further observation of Bingham's was that through the course of two centuries American philanthropists demonstrated the difficulty of inducing the aboriginal tribes of the North American continent to use the European literature, and that the major cause of the

⁶¹Ibid.

failure in this regard was the "anomalous, intricate, and ever dubious orthography."⁶² Following this general philosophy, the missionaries' expressed aim was to avoid an ambiguous, erroneous, and inconvenient orthography by assigning one certain sound to every character, thus representing with "ease and exactness the true pronunciation of the Hawaiian language."⁶³ The alphabet finally advocated by Bingham was <a>, <e>, <i>, <o>, <u>, <h>, <k>, <l>, <m>, <n>, <p>, <w>. Bingham indicated in his discussions of the subject that these twelve letters, and possibly eleven, omitting either u or w, "will express every sound in the pure Hawaiian dialect."⁶⁴ Table 26 is an analysis of the vowels of this orthographic system proposed by Hiram Bingham.

"The vowels were called so as to express their power by their names."⁶⁵ Accordingly, <a> was called [a], <e> was called [e], <i> was called [i], <o> was called [o], and <u> was called [u].⁶⁶ The consonants also had names which would suggest their "power" (phonemic character); as such,

⁶²Ibid.

⁶³Ibid.

⁶⁴Ibid.

⁶⁵Ibid.

⁶⁶Ibid.

TABLE 26

AN ANALYSIS OF THE ORTHOGRAPHIC SYSTEM FOR THE VOWELS
PROPOSED BY HIRAM BINGHAM

Graphemes	From Bingham Pronunciation Key	Phonemes Suggested by Hervey
a	as in "art", "father"	a
e	as in "pale" or "they"	e
i	as in "machine"	i
o	as in "no"	o
u	as in "too"	u

Hiram Bingham was grappling with the basic concepts of phoneme, grapheme, and fit. When he used the term "power," he did so to describe the phoneme associated with the grapheme, or to discuss the relationship of the printed symbol with the associated phoneme. Referring to the vowels as [eI], [i], [a], [o], [u] was undoubtedly an attempt to aid the native speakers of Hawaiian in recognizing the nature of the fit introduced to them.

Bingham identified the following consonant sounds to which the writer has added a phonetic transcription, e.g., "He" - [he], "Ke" - [ke], "La" - [la], "Mu" - [mu], "Nu" - [nu], "Pi" - [pi], "We" - [we]. When the consonants were introduced to the Hawaiian pupils, they learned each consonant in a syllable with every possible combination of vowels, e.g., <ke>, <ki>, <ka>, <ko>, <ku>, <he>, <hi>,

<ha>, <ho>, <hu>, and so forth.⁶⁷

The alphabet in Figure 8 is illustrative of the alphabet after the revision of 1826, although no date has been established for this particular printing.

The alphabet in Figures 9, 10, and 11 was printed on a replica of the original Ramage Press used by Elisha Loomis. It can be recognized that this alphabet is an early one, since , <d>, <r>, <t>, and <v> are included, although these symbols were omitted from the orthographic system after the revision of 1826. The diphthongs <ae>, <ai>, <ao>, <au>, <ei>, <eu>, and <ou> were included. Although the descriptive term for these vowel combinations was "diphthongs", a careful reading of the accompanying pronunciation key gives the impression that the missionaries had a developing understanding that these orthographic combinations were not articulated as diphthongs.

The First Alphabets

In Table 27, the first column includes the orthographic adaptations taken from the reproduction of the original imprint. Column two includes the descriptive commentary employed by the missionaries. The third column contains the key words employed in the original alphabet sheet to-

⁶⁷Ibid.

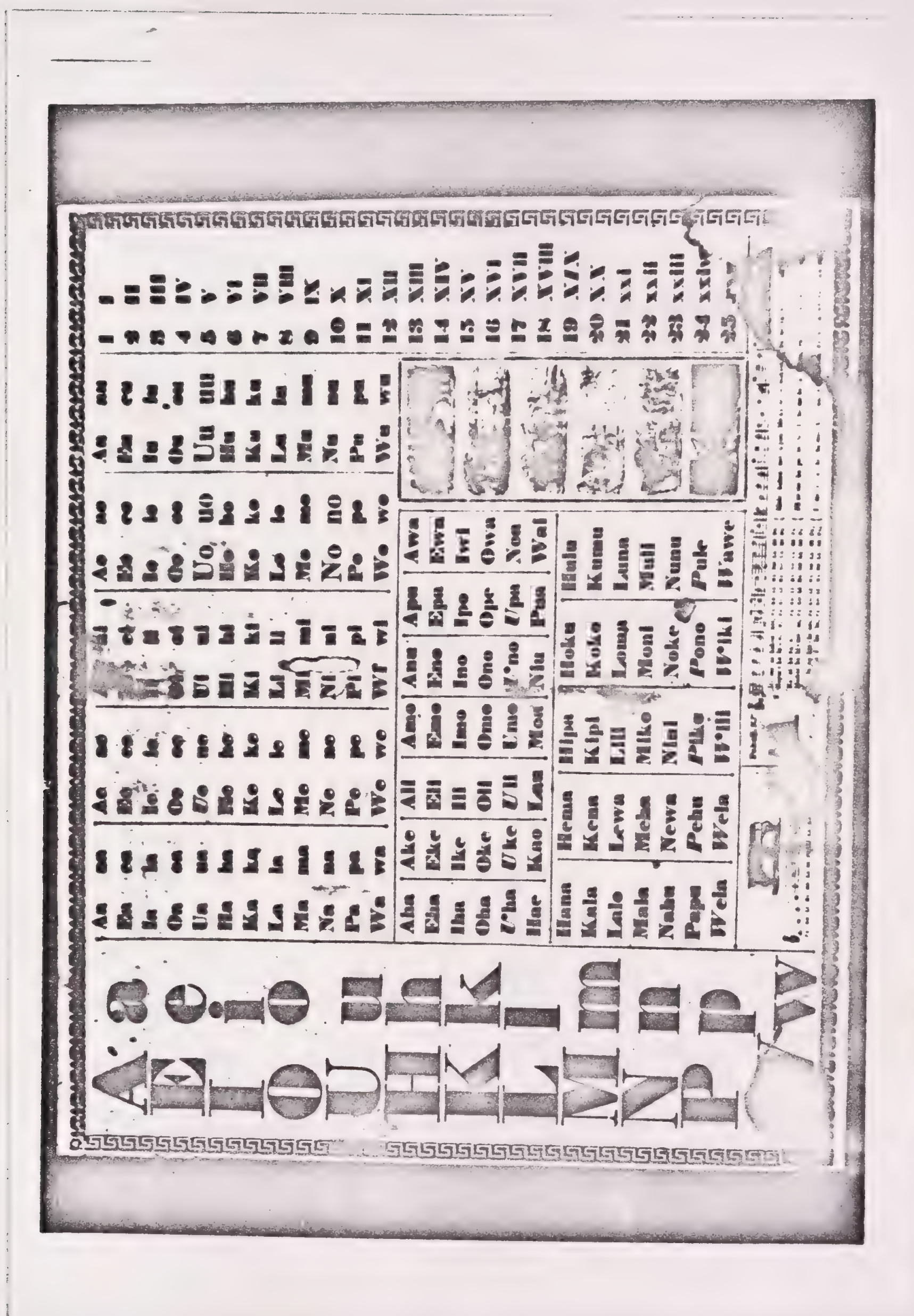


Fig. 8. Hawaiian alphabet on cloth, original in Hawaiian Mission Children's Society Library, Honolulu, Hawaii.

THE ALPHABET.



VOWELS.		SOUND.	
	<i>Names.</i>	<i>Ex. in Eng.</i>	<i>Ex. in Hawaii.</i>
A a	...ā	as in <i>father</i> ,	la—sun.
E e	...ē	— <i>tete</i> ,	hemo—cast off.
I i	...ī	— <i>marine</i> ,	marie—quiet.
O o	...ō	— <i>over</i> ,	ono—sweet.
U u	...ū	— <i>rule</i> ,	nui—large.

CONSONANTS.		<i>Names.</i>	CONSONANTS.		<i>Names.</i>
B b		be	N n		nu
D d		de	P p		pi
H h		he	R r		ro
K k		ke	T t		ti
L l		la	V v		vi
M m		mu	W w		we

The following are used in spelling foreign words:

F f	fe	S s	se
G g	ge	Y y	yi

Fig. 9. Page one of the first alphabet printed in Hawaii.

2

DIPHTHONGS.

Ae	as in <i>aye</i> , - - - ae—yes.
Ai	as in <i>aisle</i> , or <i>idol</i> , - - ai—food.
Ao	as <i>a</i> in <i>far</i> , followed closely by <i>o</i> ; ao—bread.
Au	like <i>ow</i> in <i>row</i> , - - - pau—all.
Ei	as in <i>eight</i> , nearly, - - lei—beads.
Eu	as <i>a</i> in <i>late</i> , followed by <i>oo</i> ; weuweu—grass.
Ou	as <i>o</i> followed closely by <i>oo</i> ; lakou—they.

TABLE I.

LESSON 1.

Ba	be	bi	bo	bu
da	de	di	do	du
ha	he	hi	ho	hu
ka	ke	ki	ko	ku
la	le	li	lo	lu
ma	me	mi	mo	mu
na	ne	ni	no	nu

Fig. 10. Page two of the first alphabet printed in Hawaii.

3

id.

pa	pe	pi	po
ra	re	ri	ro
ta	te	ti	to
va	ve	vi	vo
wa	we	wi	wo

54

LESSON 2.

7.

Double vowels pronounced separately.

Aa	ee	ii	oo
was	kef	lii	hop

LESSON 3.

Diphthongal syllables,

Ae	lae	nae	pae
ai	hai	kai	mai
ao	hao	kao	mao
au	mau	nau	rau
ci	lei	nei	pei
cu	lieu	peu	teu
ou	kou	hou	mou

Fig. 11. Page three of the first alphabet printed in Hawaii.

TABLE 27

PHONETIC ANALYSIS OF VOWELS SHOWN IN FIG. 9

Graphemes	Description	Hawaiian Key Words and English Glossary		Phonetic Analysis of: Pukui and Elbert	
		English Glossary	Column 2	Column 2	Elbert
ae	as a in ayee	ae yes	a-i	a-i	a-e
ai	as in aisle or idol	ai food	aI ¹	a-i	a-i
ao	as a in far fol- lowed closely by o	ao bread	a-o	a-o	a-o
au	like ow in vow	pau all	au	a-u	a-u
ei	as in eight	lei beads	eI	e-i	e-i
eu	as a in late followed by oo	weweu grass	e-u	e-u	e-u
ou	as o followed closely by oo	lakou they	o-u	o-u	o-u

gether with a translation of the Hawaiian. The fourth column presents a phonetic analysis of the description found in the second column, using the symbols of the International Phonetic Alphabet. The fifth column of the table presents the phonetic analysis of the graphemes according to Pukui and Elbert.⁶⁸ At times, as in the case of the grapheme <ae>, the articulation as described in column two differs from the analysis presented by consulting Pukui and Elbert.⁶⁹

The use of the descriptive phraseology in Figure 10, "as 'a' in 'far' followed closely by 'o'," may indicate an attempt to discriminate the diphthong [aI] from the vowel combination [a-i]. "Followed closely by" may have been the only way that the New Englanders knew of indicating that the Hawaiian diphthong [a-i] was different from the English [aI].

"Double vowels pronounced separately", were listed separately as <aa>, <ee>, <ii>, <oo>. The <uu> combination was omitted from this list even though it is found in any number of place names such as "Punuluu". In reference to another aspect of the phonology of Hawaiian, there is

⁶⁸Mary Kawena Pukui and Samuel H. Elbert, English-Hawaiian Dictionary (Honolulu: University of Hawaii Press, 1964), pp. x-xi.

⁶⁹Pukui and Elbert, Hawaiian-English Dictionary, op. cit., p. xxix.

evidence that the missionaries recognized the presence of the glottal stop but did not realize it was a phonemic element in the language. "There are, on the other hand, abrupt separations or short and sudden breaks between two vowels in the same word."⁷⁰ One characteristic of spoken Hawaiian which could have induced such a description is the double and triple vowel grapheme combinations which are pronounced not in the diphthongized manner of English, but separately. The second characteristic is the sudden breaks between two vowels in the same word which could have been descriptive of the glottal stop, although it was not recorded as such.⁷¹

Bingham made another observation of interest to those conversant with phoneme theory.

The slight variation in quantity, though not in quality, of sound in the vowels requires no mark of distinction, any more than in the variations of the sound of a in the English words 'art' and 'father'. Here the quantity may differ slightly though it is not necessary to put a distinctive mark, or make a different character.⁷²

Along these lines Pukui and Elbert have denoted both stressed and unstressed vowels in the pronunciation of

⁷⁰Bingham, A Resident of Twenty-One Years in the Sandwich Islands or the Civil, Religious, and Political History of those Islands, op. cit., p. 154.

⁷¹Ibid. (It is a moot point as to whether Hawaiian pronunciation has changed significantly since the 1820's.)

⁷²Ibid.

Hawaiian. The phonetic analysis in the right-hand column of Tables 28 and 29 is the writer's interpretation of the descriptions used by Pukui and Elbert.

TABLE 28
UNSTRESSED VOWELS^a

Graphemes	Explanation	Phonetic Description from Hervey
a	like a in <u>a</u> bove	ə
e	like e in b <u>e</u> t	ɛ
i	like y in ci <u>t</u> y	ɪ ¹
o	like o in s <u>o</u> le	oʊ
u	like oo in m <u>o</u> on	u

^aPukui and Elbert, Hawaiian-English Dictionary, op. cit., p. xxix.

TABLE 29
STRESSED VOWELS^a

Graphemes	Explanation	Phonetic Description from Hervey
ā	like a in f <u>a</u> r	a
ē	like ay in pl <u>a</u> y	eɪ
ī	like ee in s <u>e</u> e	i
ō	like o in s <u>o</u> le	oʊ
ū	like oo in m <u>o</u> on	u

^aPukui and Elbert, Hawaiian-English Dictionary, op. cit., p. xxix.

It is documented that the missionaries recognized variations in vowel length as manifested by speakers of Hawaiian. That they may not have been aware of the nuances discussed by Pukui and Elbert, is not at all surprising. It becomes clear also from Bingham's observations that what he called diphthongal combinations were the vowel combinations recognized today as associated with the graphemes <ae>, <ai>, <ao>, and <au>. Bingham's description of how these combinations were spoken is explicit: "Whether more close or more open, each letter retains its original monosound."⁷³ This writer infers from the following statement that these vowel combinations may have been articulated in fluent speech in a manner resembling diphthongs as recognized in American English Speech. At other times they may have been articulated with varying degrees of separation between the vowel phonemes. "In the name of the island second in size in the group, whether pronounced Mau-i or Ma-u-i, there is no such difference as to cause a mistake in a native hearer."⁷⁴

Bingham felt that it would not be possible to write any language with a more simple or limited orthographic system, and at the same time have it equally intelligible to the children who would be using it. A syllabic

⁷³Ibid., p. 154.

⁷⁴Ibid.

alphabet of ninety-five characters would have accommodated the phonology of Hawaiian, but would not have been so simple or convenient as the alphabet adopted by the missionaries.⁷⁵

Though five vowels and seven consonants would have been sufficient in expressing the phonemes of the Hawaiian language as recognized by the missionaries, there were other reasons for including the possibility of other graphic symbols. As communications among the peoples of the Pacific were accelerated through an increase in marine traffic, the spelling of other dialects of Polynesian became a more frequently encountered problem. There was the growing need for introducing to the Hawaiians the names of persons, places, and things from other countries.⁷⁶

Bingham and others realized that eleven or twelve letters would have resulted in an orthographic system far too limited to a general knowledge of the world in printed and written form. It also seemed important to preserve the identity of foreign and Biblical names. They could not have deleted consonant graphemes from the spelling of foreign names of persons and places simply because such symbols could have been dispensed with in writing the

⁷⁵Ibid.

⁷⁶Ibid., p. 155.

strictly Hawaiian words. The following additional consonants were therefore incorporated into the expanded orthography: , <f>, <g>, <r>, <s>, <t>, <v>, and <z>.⁷⁷

The Influence of John Pickering

According to Bingham, the use of compound consonants as recommended by John Pickering for writing the Amerindian languages of North America were not included in the Hawaiian system, though the principles followed by him with respect to the vowels were followed by the missionaries in their work.⁷⁸ A direct quotation of Pickering may give a more complete background for understanding Bingham's orientation, since he indicated that he had read Pickering's work.⁷⁹

I have always thought, therefore, that it would be best to adopt as the basis of our Indian orthography, what we call the foreign sounds of all the vowels----.

a as in father
e as in there
i as in machine
o as in note
u as in rule
y as in you

⁷⁷Ibid.

⁷⁸John Pickering, "An Essay On A Uniform Orthography For The Indian Languages Of North America," Memoirs Of The American Academy Of Arts and Sciences (Cambridge: Cambridge University Press, 1820).

⁷⁹Ibid., p. 11.

B as in English and French
 D the same
 E as in there
 F as in English
 G English g hard as in game
 H As aspiration as in English
 K as in English
 L same
 M same
 N same
 O as in English robe, some, among.
 P as in English
 R the same
 S as in English at the beginning of a word
 T as in English
 U as English <oo>, both long and short
 V English <v> or German <w>
 W as in English. French <ou>
 Y as in English in words yet, you
 Z as in English

. . . in the languages of the American Indians, we have only to ascertain, in the first place, every elementary sound, and to arrange the letters, by which we may choose to represent those sounds, in the order of our own alphabet.⁸⁰

When writing a foreign word in which there was a compound consonant which could not have been omitted, the practice was to retain one grapheme of the two, such as <p> for <ph>, <t> for <th>, and <k> for <ch>.⁸¹ When both consonant graphemes had to be preserved, the procedure was to insert an <e> and after a final consonant an <a> was used as in the word "Boston", which was spelled "Bosetona".⁸²

⁸⁰Ibid., p. 2.

⁸¹Bingham, A Resident of Twenty-One Years in the Sandwich Islands or the Civil, Religious, and Political History of those Islands, op. cit., p. 155.

⁸²Ibid.

Revision of the Alphabet

From the time of Captain Cook to the arrival of the first missionaries on the brig Thaddeus on March 19, 1820, nothing had been done to increase the uniformity of the orthography of Hawaiian words written in journals, in the logs of ships, and on the numerous charts produced by cartographers of the Pacific Ocean. An increase in the marine traffic calling at ports in the Hawaiian Kingdom and wintering in the warm waters of this part of the north eastern Pacific, stimulated a need for Hawaiian place names to be written with some uniformity.

Whalers, warships, traders, and explorers arrived in increasing numbers. From the time the haoles (foreigners, strangers, hence Caucasians) settled in Hawaii, a form of pidgin came to be known.⁸³ In attempting to transcribe new words not in the Hawaiian vocabulary and many words commonly used, certain haole writers employed many curious combinations of letters to suggest an approximation of what they thought the native speaker had said.

The first missionaries followed suit, imitating and adapting the hitherto unwritten language, as the individual problems presented themselves. Very early in their

⁸³The first Island word recorded by Lucia Holman in her journal, March 14, 1820, p. 19, was "cow-cow" (kaukau), pidgin for "eat". (The Hawaiian word is 'ai).

experiences with the Hawaiian language, they developed some very basic insights. Two copies of the New Zealand Grammar and Vocabulary arrived in January 1822. The members of the mission in Hawaii were happy to see such a striking resemblance between the languages of the Sandwich and Society Islands. This material afforded the missionaries of Hawaii considerable aid in "setting" the orthography of the Hawaiian language. They also felt that it confirmed, in some measure, their choice of five vowels, viz., <a> as in father, <e> as in hate, <i> as <ee> in feet, <o> as in pole, <u> as <oo> in boot, and <ai> for the sound of the English <i>. They felt that these five vowels, with twelve consonants , <d>, <h>, <k>, <l>, <m>, <n>, <p>, <r>, <t>, <v>, <w>, would be sufficient to adequately express all the phonemes in the language which had been identified.⁸⁴

Some of the missionary group felt that seven consonants and five vowels might serve as a satisfactory orthography for the language, that , <d>, <r>, <t>, and <v> might be omitted from the orthographic system. Their places might be supplied, by using the <p> invariably for and <p>, the <l> for <d>, <l>, and <r>, the <k> for <k> and <t>, and the

⁸⁴"Journal of the Mission," Missionary Herald, XIX (Boston: Crocker and Brewster, 1823), p. 41.

<w> for <w> and <v>.⁸⁵ The missionaries, greatly to their credit, had determined among themselves to use <a>, <e>, <i>, <o>, <u> with their Latin values, but it is important, too, that the New Zealand book confirmed them in this choice.

The missionary group met on May 16, 1825 at 2:00 o'clock in the afternoon in order to discuss the question "is an uniformity in the orthography of the Hawaiian language expedient, and what is the best means of securing it?"⁸⁶ In keeping with this determination, they appointed Bingham, Stuart, and Chamberlain to a committee to correspond with the different members of the mission stationed on the various Hawaiian islands, instructing them to submit to the missionary group, "propositions embracing the difficulties now felt in the present mode of spelling the language."⁸⁷

William Ellis of Tahiti had read John Pickering's work on establishing the orthography of American Indian languages and had considerable influence in the final determination, not merely of the orthographic symbols chosen to represent

⁸⁵Ibid.

⁸⁶Levi Chamberlain Journal, May 16, 1825, Vol. IV, p. 60. [This typed copy is substantially like the manuscript, according to Miss Bernice Judd. August 19, 1938.]

⁸⁷Ibid., p. 61.

the phonemes of Hawaiian, but also of the criteria upon which such choices were to be made.⁸⁸ Hiram Bingham mentions the essay also,⁸⁹ and undoubtedly Loomis and others knew of it.⁹⁰ This essay was based upon Peter S. Duponceau's English Phonology,⁹¹ of which Pickering said, "Those who are acquainted with Mr. Duponceau's essay on English phonology will perceive, that the present paper is only an application of the general principles that are there stated to the class of Indian [American Indian] languages." These general principles to which he referred were expressed in the following quotation from Duponceau: "The correct pronunciation of a language cannot be preserved, unless all its component sounds are accurately known and clearly distinguished from each other."⁹² Duponceau's implication here is exemplified by his ultimate attempt to contrive a list of infallable key-words, each beginning with

⁸⁸John Pickering, "An Essay on a Uniform Orthography for the Indian Languages of North America," Memoirs of the American Academy of Arts and Sciences, op. cit.

⁸⁹Hiram Bingham, A Residence of Twenty-one years in the Sandwich Islands or the Civil, Religious, and Political History of those Islands, op. cit., p. 155.

⁹⁰Since an original copy of Pickering's essay is in the Bishop Museum in Honolulu, it may have been available to the missionaries in 1822.

⁹¹Peter S. Duponceau, English Phonology (Philadelphia: Abraham Small, 1817).

⁹²Ibid., p. 27.

one of the twenty-seven sounds (Duponceau's count) of the English language.⁹³ Duponceau was groping toward the idea of one grapheme associated with each phoneme. Without knowing a name for it, he had the embryonic concepts of the phoneme and of what modern linguists call fit. His suggestion of an essentially phonemic method of approach to the problems of adapting an orthographic system to an unwritten language, must have been invaluable to Pickering in his work with Amerindian languages. Even though the missionaries received Duponceau's ideas only through Pickering, it is the opinion of this writer that these concepts led Bingham, Loomis, Chamberlain, Ellis, et al., to a more functionally adequate choice of an orthographic system for Hawaiian than would have been possible otherwise. Pickering had demonstrated that, as a practical method of carrying out Duponceau's principles in the choice of an orthography for Amerindian languages, orthographers were to use Southern European values of the Latin alphabet rather than the English and American ones. Ellis was one who used only the continental values of the vowels in explaining Hawaiian phonology. Table 30 presents this writer's interpretation of Ellis's concepts.

Ellis states that the alphabet used by Loomis in the

⁹³Ibid., pp. 37-58.

TABLE 30

ORTHOGRAPHY FOR THE VOWELS OF HAWAIIAN ADVOCATED
BY WILLIAM ELLIS^a

Orthographic Symbol	Key Word	Phoneme Suggested by Hervey
a	father or aha	a
e	hate	e
i	machine or	i
ee	thee	
o	note	o
u	food or bull	u
ai	wine or mine	aI

^aWilliam Ellis, A Narrative of a Tour Through Hawaii (Honolulu: The Hawaiian Gazette Co. Ltd., 1917, The Advertiser Historical Series, No. 2, p. 43.

printing of January 7, 1822, was indeed "that proposed by the Hon. John Pickering of Salem, Massachusetts."⁹⁴ He comments further: "Every sound has its appropriate sign; every word is spelled exactly as it is pronounced."⁹⁵ Thus the problem of the vowels was settled. One matter, however, went by default, viz., vowel length. Though Ellis hinted at the concept when he indicated that the grapheme <a> may be pronounced as <a> in "father" or as <a> in "aha" (see Table 30), Hawaiian affords numerous instances of vowels whose length is phonemic; i.e., the vowel length is the minimal significant difference which distinguishes

⁹⁴Ibid., Preface, p. iv.

⁹⁵Ibid.

the meaning of words which otherwise would be homonyms. More than forty years after Bingham, Loomis, and Ellis, W. D. Alexander wrote a clear explanation of this principle.

It is important to observe the distinction between long and short vowels. Thus awa means harbor, but āwa, a plant from which an intoxicating drink is made. Again kaula means war, while kāua means we two, or I and thou.⁹⁶

Other examples may be found, such as: kanaka [ka'nakə] (man), kānaka [ka:'nakə], (men); poho ['poho] (chalk), pohō ['po'ho], (to sink).⁹⁷

The coming of the printing press and all that this innovation meant, did not solve the problems of the consonants. From the time the presses started to work, the unsolved problems became more apparent and more acute. For the first time in the history of the Hawaiian culture, comparisons could be made between one imprint and another. Consequently, the missionaries became painfully aware of the several orthographic inconsistencies which plagued the pioneers of written Hawaiian. These unresolved controversies remained over what the missionaries called, the

⁹⁶W. D. Alexander, A Short Synopsis of the Most Essential Points in Hawaiian: For the Use of the Pupils of Oahu College (Honolulu: 1864), p. 4.

⁹⁷It is evident that the stress shifts to take account of added length. A mark for irregular stress, as in Spanish, would have been a valuable addition to the system.

interchangeable sounds which were still puzzling and provoking them. In the light of present day knowledge, it can be seen that in some instances, either an ambiguous symbol had to be chosen, e.g., <w> or <v>, or certain allophones had to be dealt with, e.g., [k] or [t] and [l] or [r].

The Recognition of Problems

The time was approaching when formal discussion, committee recommendations, and voting would lead to the adoption of a revised orthography. A summary of the problems confronting the missionary group may render the subsequent account of their efforts toward a solution easier to follow.

1. It was clear that pseudo-phonetic spelling using English language phonemes for the Latin alphabet would never have lent itself to uniformity and clarity. It had already been determined that the Latin phonemes for the vowels were to be the solution.⁹⁸

2. Different people heard Hawaiian consonants in different ways. Often the same person perceived the same Hawaiian speaker pronouncing the same word with a variety of consonant sounds. When confronted with the two pronunciations, the Hawaiian sometimes chose one rather than

⁹⁸Claude M. Wise and Wesley D. Hervey, "The Evolution of Hawaiian Orthography," Quarterly Journal of Speech, XXXVIII (October, 1952), p. 314.

the other, or claimed that both sounded alike to him.⁹⁹

3. Merely using Latin letters uniformly for all these sounds did not help. Something had to be done about the so-called interchangeable sounds, which were actually groups of allophones of single phonemes, each demanding to be represented by a single phonemic symbol. The following list of both the vowels and consonants, as they appear in modern Hawaiian, gives a partial indication of the problems of alternative speaking, hearing, and writing in the 1920's.¹⁰⁰

TABLE 31

THE VOWELS OF HAWAIIAN^a

Orthographic Symbols	Phonemes	Allophones
i	i	[i] <u>ki</u> [ki] (also, from the Tahitian, <u>ti</u> , a plant) [iɾ] <u>wikiwiki</u> ['wiɾki'wiɾki] (quickly)
e	e	[e] <u>ke</u> [ke] (the) 'oe ['oe] (you) [ɛ] <u>Pele</u> ['pɛlɛ] (the volcano goddess)
a	a	[a] <u>ka</u> [ka] (the) [ə] <u>pehea</u> [pe'heə] (how) [ʌ, a] <u>pali</u> ['pʌli, pali] (cliff)
o	o	[o] <u>koa</u> [koə] (soldier)
u	u	[u] <u>akua</u> [a'kuə] (God) <u>aku</u> ['aku] (bonito fish)

^aIbid., XXXVIII.

⁹⁹Ibid., XXXVIII.

¹⁰⁰Ibid., XXXVIII, p. 316.

TABLE 32
THE DIPHTHONGS OF HAWAIIAN^a

Orthographic Symbols	Phonemes	Allophones
ai	ai	[ʌi, ai] <u>kai</u> [kʌi, kai] (the sea, sea water)
au	au	[ʌu, au] <u>pau</u> [pʌu, pau] (finished)
oi	oi	[oi] <u>poi</u> [poi] (kalo paste)
ei	ei	[ei] <u>lei</u> [lei] (garland)
eu	eu	[eu] <u>keu</u> [keu] (additional)
ou	ou	[ou] <u>hou</u> [hou] (new)

^aIbid., XXXVIII.

In modern Hawaiian there are five vowel phonemes covering nine phonetically distinguishable sounds. Hawaiian diphthongal forms appear to be spaced more widely than in the case of English diphthongs. Some, such as <ae>, <ao>, <oe> are so widely spaced that it seems best to regard the vowel components as being separate syllables. Helene Luise Newbrand found [ai] and [au] pronounced exclusively with the allophone [ʌ]; thus [ʌi] and [ʌu].¹⁰¹ However, [ai] and [au] are frequently heard from Hawaiians who have learned their language in less isolated communities than did Newbrand's informants.

In modern Hawaiian there are eight consonant phonemes,

¹⁰¹ Helene Luise Newbrand, "A Phonemic Analysis of Hawaiian" (Master's Thesis, University of Hawaii, 1951), p. 11.

covering nine distinguishable sounds, as shown in Table 33.

TABLE 33

THE CONSONANT PHONEMES OF HAWAIIAN TOGETHER WITH
THEIR ASSOCIATED ALLOPHONES^a

Orthographic Symbol	Phonemes	Allophones
h	h	[h] hana ['hane] (work)
k	k	[k] kolo ['kolo] (to crawl)
l	l	[l] loa [loə] (long)
m	m	[m] mo'i [mo:ʔ'i:] (king)
n	n	[n] nei [nei] (here)
p	p	[p] po [po:] (night)
w	w	[w] wahine [wa'hine] (woman)
		[v] hewa ['heve] (error)
' or '	ʔ	[] pa'u [paʔu] (soot)

^aWise and Hervey, op. cit., p. 317.

The Hawaiian of 1820 may have had at least eleven distinguishable consonant sounds. There were many confusions resulting from attempts on the part of the missionaries to set down sounds heard in fluent speech, but more frequently from the allophones of some of the phonemes, as can be seen in Table 34.

The problems with the orthography which assumed major importance in the minds of the missionaries, were those posed by <k> and <t>, <l> and <r>, and <w> and <v>. These dilemmas had to be resolved so that the increasing number of printed materials coming from the press could be in a more uniform orthography than had been attained thus far. Of somewhat less importance to the missionaries were the

TABLE 34

AN ANALYSIS OF THE ORTHOGRAPHIC SYSTEM FOR CONSONANTS^a

Phonemes	Allophones	Example	Source	Normalized Spelling
k	k t	<u>kapu</u> <u>tabu</u> Atooi Tamaah Maah Tamoree Terreeoboo Kahow Modoo	Bishop Bishop Cook, 1778 Vancouver Bingham, 1822 Bingham, 1822 Vancouver	<u>kapu</u> (forbidden) <u>kapu</u> 'o Kaua'i Kamehameha Kaumuali'i Kalaniopu'u Kalanimoku
l	l r	Liholiho Rihoriho Honoruru Kairua <u>harra</u> Orono Hido <u>lido</u>	Loomis Loomis Ellis Ellis King King Chamberlain Chamberlain	Liholiho (name) Liholiho Honolulu Kailua (a town) hale (house) 'o Lono (a god) Hilo (a city) <u>lilo</u> (to change)
n	n r	<u>nooie</u> Oreehoua	Mrs. Holman Cook, 1778	nui 'o Nihoa
p	p b	<u>pule, pure</u> <u>bule, bure</u> Obookiah boa <u>tabu</u>	Ellis Ellis Loomis Campbell Ellis	pule (prayer) <u>pule</u> <u>Opūkaha'ia</u> pua'a (pig) <u>kapu</u>

TABLE 34 Continued
AN ANALYSIS OF THE ORTHOGRAPHIC SYSTEM FOR CONSONANTS^a

Phonemes	Allophones	Example	Source	Normalized Spelling
w	w	Owhyhee	Cook, 1778	Hawai'i
	v	Havaii	Ellis, 1825	Hawai'i
		Waiava	Loomis, 1824	Waiawa (a valley)
		Halavr	Young, 1808	Halawa
	"breaks"	Ha-alilio	Bingham, 1822	Ha'alilio

^aWise and Hervey, op. cit., p. 317.

problems of <p> and , and <l> and <d>. One minor area of difficulty for which a solution was found even before the New Englanders put their thoughts to matters of an orthography, was <n> and <r> confusion; |r| was dropped as an allophone of |n|. ¹⁰² Another question, involving the glottal stop |ʔ|, though recognized by the missionaries, was never subjected to proper formulation, and to this day has received no uniform recognition in Hawaiian orthography. ¹⁰³

The suggestion to use Latin vowel values was one of the most important forces serving to produce a more phonetic orthographic system than might have developed otherwise. Bingham had acknowledged the missionaries' debt to Pickering in 1822, "The basis of his [Pickering's] alphabet, in respect to vowel sounds, is followed." ¹⁰⁴ John Pickering had led them toward a choice of vowel symbols which could hardly be improved upon, for these symbols agree almost point by point with those of modern IPA. It was the interchangeable consonants that still plagued the members of the mission. A detailed analysis of these problem consonants

¹⁰²Ibid.

¹⁰³Bingham, The Sandwich Islands (Hartford, Huntington, 1847), p. 162. Bingham remarks, "There are . . . abrupt separations or short and sudden breaks between two vowels in the same word."

¹⁰⁴Ibid., p. 155.

may serve to clarify this period in the history of the alphabet for Hawaiian.

Problem Consonants

The glottal stop is phonemic in Hawaiian. It constitutes, in any number of instances, the minimum of significant difference which changes the meaning of otherwise identically sounding words. For example: kea (white), ke'a (to hinder); ia (he, she, it), i'a (fish). Since the glottal stop is clearly a consonant, as meaningful and necessary as any other consonant in the language, the selection of a symbol for it was imperative. Possibly Cook was groping for a symbol when he inserted the <h> in Owhyhee, but neither he nor anyone after him pursued the idea consistently. Bingham made a useful observation:

Double or triple vowels are never used to express a single sound, and where they occur, are sounded separately, as: a-a, e-e, i-i, o-o, u-u. The accent being generally on the former, the latter being a sort of echo, as in the name Ha-a-li-li-o.¹⁰⁵

Obviously Bingham recognized the glottal stop acoustically, but he speaks of it only as separating adjacent identical vowels. The idea that the separation was often meaningful, that is, phonemic, seems not to have occurred to him. It should have occurred to Ellis, since he had traveled among

¹⁰⁵Ibid., p. 154.

the Polynesian Islands considerably and must have encountered words still retaining the |k| of which the Hawaiian glottal stop appears to be vestigial.

Compare the following:

Maori, <u>karihi</u>	(weights on lines)
Tahibitian, 'arihi	(fish net lines)
Hawaiian, 'alihi	(rope for weights)
Maori, <u>ariki</u>	(king, chief)
Tuamotu, <u>ariki</u>	" "
Samoan, <u>ali'i</u>	" "
Hawaiian, <u>ali'i</u>	" "

Since the etymology shows the sound to have been [k] originally, Ellis should have recognized the glottal stop as a consonant in full standing, and provided a symbol for it. But this desirable end has never been achieved, except irregularly in modern dictionaries and teaching materials. Books in Hawaiian, such as the Bible; Fornander's¹⁰⁶ excellent collection of legends, chants, etc.; and the once plentiful Hawaiian language newspapers, show no symbol for the glottal stop.

The Hawaiian of the period between 1778 and 1826 had three plosives: the glottal stop, the bilabial [p] (with alternative [b]), and a roof-of-the-mouth plosive [k-t], for which the tongue contact might be anywhere between the

¹⁰⁶ Abraham Fornander, Fornander's Collection of Hawaiian Antiquities and Folk-lore (Honolulu: H. I. Bishop Museum Press, 1916-17).

teeth and the soft palate. Since the Hawaiian ear required only that this plosive distinguish itself from [p] and the glottal stop, it mattered not at all where the closure was made.¹⁰⁷

The occasional spelling of this sound with <d>, as in Vancouver's Kahow Modoo for Kalanimoku, is a record of a voiced form of the [t]. Voicing was a freely variant feature. Apparently it did not appear often; no attention is given to it in the deliberations of the missionaries. So far as it constituted a problem, it seems to have solved itself.

The sounds [l] and [r] (trilled), and less frequently [d], belonged to the same phoneme, as is familiar from the well-known substitution of [l] for [r] in English by the Chinese and others. Hawaiian examples: Liholiho for Rihoriho, Hido for Hilo. It is clear that a tapped or briefly trilled [r] and a dental [d] have much in common with [l], viz., voicing and tongue-tip contact, as well as acoustic effect.

The confusion of [p] and [b], as in pule-bule, is easily understood as a matter of non-significant voicing. This [b] seems to have died out without much attention.

¹⁰⁷Newbrand's research shows that [t] still exists as an allophone of [k] in Niihau, the most isolated of the Hawaiian Islands.

The problem of [w] and [v] does not appear to parallel exactly those of [k-t] and [l-r]. As will be seen, the missionaries do not make clear what, precisely, the problem was in their time. They mention the interchangeability of [w] and [v],¹⁰⁸ but they do not state specifically that these sounds are uniformly interchangeable; and, quite understandably, they do not discover that the true Hawaiian [v]-sound is seldom or never the tense [v], but instead the lax [ʋ].¹⁰⁹ The sounds are certainly not freely interchangeable in modern Hawaiian. There appear, rather, to be two "dialects" of Hawaiian, in one of which <w> is pronounced [w] throughout, while in the other <w> is pronounced [w] when preceded by <o> or <u>, and [ʋ] in all other instances,¹¹⁰ thus wahine [ʋa'hine] (woman), but 'o wahine [o wa'hone]. The influence of a rounded vowel in pro-

¹⁰⁸"Journal of the Mission," Missionary Herald, (February, 1823). Also unpublished minutes of the Prudential Meetings of the Mission (written by Levi Chamberlain) June 20, 1825. Original in Archives of Hawaiian Board, Hawaiian Mission Children's Library, Honolulu, Also Ellis, p. 243.

¹⁰⁹Possibly in some instances the bilabial voiced fricative [β].

¹¹⁰This is the opinion of Samuel H. Elbert, Department of Pacific Languages, University of Hawaii, Honolulu. Letter to C. M. Wise, September 11, 1951. Newbrand, op. cit., pp. 128-131, finds evidence to the same effect.

ducing a succeeding [w] is evident.

Problem Vowels

The missionaries do not mention difficulties with the allophones of the vowel phonemes. Possibly, in their times, there were few allophones of the basic |i|, |e|, |a|, |o|, |u|. There are relatively few in present day Hawaiian. The letter e, for example, is in by far the largest number of cases pronounced [e], as in eha ['eha] (pain). But in a limited number of words, prominently where <e> is adjacent to <l>, <n>, or <w>, the pronunciation is nowadays [ɛ]; for example, hele ['hɛlɛ] (to walk), mele ['mɛlɛ] (song), Ewa ['ɛvə], lewa ['lɛvə], Pele ['pɛlɛ] (volcano goddess), lele ['lɛlɛ] (to jump), hewa ['hɛvə], kenikeni ['kɛni'kɛni] (ten cents).

The phoneme [a] from the earliest missionary times contained the allophone [ə] regularly in unstressed syllables, as in kaha ['kahə] (to draw), mea ['meə] (thing), akea [a'keə] (broad, open). In stressed syllables, the allophone [ʌ] appeared in non-significant variation with [a], as in ['pʌli] for pali (cliff), ['mʌke] for make (death), ['pʌlə'pʌlə] for palapala (writing). That this variant was common is evident from the fact that

Campbell¹¹¹ wrote "u, as in the word 'but,'" and that Lucia Holman in her journal wrote "pulla-pulla" for "palapala."¹¹²

In modern Hawaiian, the phoneme [i] has an allophone [iɾ], which occurs in a very limited number of words, such as wikiwiki ['wiɾki'wiɾki] (quickly) and like ['liɾke] (like). Campbell mentions "'I', as in the word 'indolence.'"¹¹³ Here he clearly intended [I]. But his writing wikiwiki as weete weete indicates that, as he heard it, this word was pronounced ['witi'witi].

The remainder of this account, consisting mainly of a series of extracts from minutes of meetings and from letters, illustrates the processes of thought through which the missionaries progressed from their early spelling to an orderly and functional phonemic spelling, as illustrated throughout the foregoing. These data will be presented in two divisions: (1) the earlier gropings toward uniform orthographics (1821-25); and (2) the formal deliberations, correspondence, and voting (1825-26).¹¹⁴

¹¹¹Archibald Campbell, "A Vocabulary of the Language of the Sandwich Islands," in Voyage Around the World (Edinburgh: 1816), pp. 227-255.

¹¹²"Journal of Lucia Holman," pp. 18 ff.

¹¹³Campbell, loc. cit.

¹¹⁴Most of the source material for the quotations following has been furnished by the Hawaiian Mission Children's

Hiram Bingham, the leader of the original group of seven missionaries, was no mean thinker. His grasp of the problems of setting up an alphabet was strikingly complete. Surprisingly enough, he considered also a syllabary (which would have been a distinct possibility), though he presumably knew no Japanese or other language using one. Writing in 1840, he explained the procedures of 1822:

To avoid all arbitrary spelling, all silent letters and the representation of the same monosound by several different letters, and many sounds by the same letter, as in the English, seemed to be due . . . to the . . . Hawaiians. It was, therefore, a part of our task to secure to the people a perfect alphabet, literal or syllabic, of all the sounds which were then in use. . . . Had we made . . . a single vowel stand for as many sounds as in English, and several different vowels for the same sound, and given the consonants the ambiguity of our c, s, t, ch, gh, etc., it would have been extremely difficult if not impracticable to induce the nation to become readers. . . .

There were some difficulties to be encountered in distinguishing several consonant sounds, and to determine which of two characters in the Roman or English alphabet to adopt for certain sounds that appeared somewhat variable in the mouths of the natives. The following appeared sometimes to be interchangeable [sic]: b and p, k and t, l and r, v and w, and even the sound of d, it was thought by some, was used in some cases where others used k, l, r, or t.¹¹⁵

The problems posed by Bingham had become acute in

Library, Honolulu, through the kindness of the librarian, Miss Bernice Judd.

¹¹⁵Bingham, The Sandwich Islands, op. cit., pp. 152-155.

1822 when Loomis, the printer, finally put into action the little hand-operated "Ramage" printing press which the missionaries had brought with them in 1820. Bingham continues:

When the king [Liholiho] first examined the press, a sheet of white paper being laid on, he pulled the lever round and was surprised to see the paper instantly covered with words in his own language. . . . Being once asked whether L or R ought to be used in the spelling of his name, he attempted earnestly to ring the changes on the two letters, and at length gave the preference to R and used it, though L is doubtless the better representative of the initial sound in his name.¹¹⁶

An entry in the "Journal of the Mission" for January 1, 1822, shows a praiseworthy effort on the part of the missionary group to learn what was being done about the orthography of other dialects of Polynesian, in this case Maori. We have seen how the group procured and at once made use of The New Zealand Grammar and Vocabulary. The journal entry of July 6, 1822, contains a copy of a joint letter looking toward a junket to the Society Islands in search of information on orthography:

By the last conveyance [the ship Arab]
 . . . we . . . gave you some intimation of a
 contemplated visit to the Society Islands, by
 the special and gratuitous favor of King
 Tamoree . . . [in] one of his fine new brigs. . . .
 We desire . . . to obtain copies of all their
 [the Tahitians'] elementary books, [and] trans-
 lations, and . . . to consult them especially

¹¹⁶Ibid., p. 156.

respecting the most convenient characters for writing and printing this language. . .¹¹⁷

William Ellis had arrived from Tahiti just three months earlier. Four major events in the history of Hawaiian orthography were thus crowded into the first six months of 1822:

January 1, The arrival of the New Zealand Grammar and Vocabulary.

January 7, The first printing.

April 7, The arrival of Ellis in the Islands.

July 6, The announcement of the junket to Tahiti.

Obviously each of these events greatly affected the situation. So did the writings of Pickering,¹¹⁸ which Bingham¹¹⁹ mentions in his book just one page before the account of the first printing. Pickering and The New Zealand Grammar and Vocabulary had influenced the missionaries to write vowels in the Latin style, and Ellis' arrival confirmed them in that practice.

Ellis still used <t>, <r>, and . As late as 1824, Loomis wrote in his journal¹²⁰ "Tamehameha, Tauai,

¹¹⁷Loomis, op. cit.

¹¹⁸Pickering, op. cit.

¹¹⁹Bingham, The Sandwich Islands, op. cit., p. 115.

¹²⁰Loomis, op. cit.

Honoruru, Rihoriho, Waititi," etc. Both he and Ellis, however, used <k> in some words, and Loomis admits specifically (June 22, 1824) that,

The L and R and the K and T are according to the opinions of some, used interchangeably [sic] by the natives--certainly they are so used by some of the members of the Mission. Thus Kairua may be spelt Kairua or Kailua, Tairua or Tailua.

The move toward the solution of the problem of the consonants was not long in coming. The minutes¹²¹ of the Prudential Meeting of the Mission in Honolulu, May 17, 1825, Bingham, Stewart, Ely, Loomis, Chamberlain, and Blatchely present, tell their own story.

The committee on arrangements proposed the following question for consideration. "Is uniformity in the Hawaiian language expedient? and what are the best means of securing it?" Upon this question the following order was taken. . . . Resolved: That a committee of three be appointed to correspond with the different members of the Mission as to the expediency of establishing an uniformity in the orthography of the Hawaiian language, and to submit to this meeting for their consideration propositions embracing the difficulties now felt in spelling the language, For this Committee made choice of Messrs. H. Bingham, C. S. Stewart, Levi Chamberlain.¹²²

On June 20, 1825, the committee reported:

The Committee appointed to correspond with

¹²¹"Unpublished Minutes of the Prudential Meetings of the Mission," in Archives, Hawaiian Mission Children's Library, Honolulu, pp. 1-2.

¹²²Ibid.

the different members of the Mission respecting the expediency of an uniformity in the orthography of the Hawaiian language submitted the following view of the subject which was approved.

The Committee . . . beg leave to submit the following propositions embracing as they conceive the difficulties now felt in spelling the language.

An Alphabet was adopted more than three years ago; which was intended to include all the letters necessary and no more.

It has been found however from careful attention, that b and d, though they are used by a few natives in a certain class of words, may always with strict propriety be supplied by others, which better represent the sound most frequently heard in the pronunciation of those words. K and t, l and r, v and w, are used interchangeably [sic]. Some individuals used the k in the same word in which t is more uniformly employed by others. The same difference exists in reference to the other four letters.

In order to effect an uniformity either the k or the t, the l or the r, the v or the w must be excluded from the Hawaiian Alphabet.

1. Shall b and d be retained in the Hawaiian Alphabet, or shall they be regarded as foreign letters, and be only used in spelling foreign words?
2. Shall k be excluded or shall t, or shall both be retained?
3. Shall l be excluded or shall r, or shall both be retained?
4. Shall v be excluded or shall w, or shall both be retained?

Many words at present, in which r occurs, are, by many uniformly pronounced as if written with l; and the same is true with respect to the k and t, and the v and w.

The inconvenience attending the present method of spelling is obvious, and is felt by every member of the Mission. Honoruru may be written four different ways, and is constantly written two ways. Kaavaroa may be written eight, and is actually written three. Kealakekua may be written sixteen, and is uniformly written three or four, and every word in the language, in which letters occur

that are used interchangeably [sic], may, by permutation, be written nearly as many different ways as the square of the whole number of interchangeable [sic] letters in the word . . .

Levi Chamberlain Secy.
H. Bingham Moderator¹²³

When the committee on orthography corresponded with the members of the mission concerning the specific details of the consonants they received a number of helpful letters.¹²⁴ Abraham Blatchely, a physician, wrote (July 11, 1826) with a heavy attempt at wit in a style loaded with medical nomenclature.

Having been consulted upon the case of the orthography of the Hawaiian language I beg leave to state that I consider the present state in which it lies to be a diseased one and that as the disease has already become chronic something ought to be administered or some course of treatment adopted immediately to remove it . . . I find as a proximate cause five separate extraneous or foreign substances in the Alphabet (viz) [sic]

1st one called in the English language a	Be
2nd "- - - do - - - a	De
3rd "- - - do - - - an	Er
4th "- - - do - - - a	Te
5th "- - - do - - - a	Ve

These cannot remain without producing a constant morbid invitation . . .

Would not an Emetic to remove the two uppermost & this followed by a Cathartic to discharge

¹²³Ibid., pp. 10-11.

¹²⁴The originals of all these letters are on file at the Hawaiian Mission Children's Library, Honolulu.

the other three be as good as any? . . . ¹²⁵

It is interesting to read the Joint report illustrated in Figures 12 and 13, since it would appear that Bingham and Chamberlain so admired Dr. Blatchely's style that they utilized it in their report. The reader is invited to make his own comparisons from the evidence presented here.

Levi Chamberlain wrote (July 14, 1826) in all seriousness, but with slightly divided mind.

I have found my mind at times in doubt respecting the propriety of rejecting characters expressing sounds which to my ear are daily articulated by the natives, and which I have the evidence of my auditory facilities are in the language.

But reflection upon the subject has convinced me, that confusion in the language will be perpetuated by an indiscriminate use of the interchangeable [sic] letters; . . . because of the discriminate manner in which the natives themselves employ the sounds in question . . .

. . . My mind has been determined to uniformity in favor of rejecting one class of the interchangeable [sic] letters and of the two doubtful characters Viz. B & D.

It is my wish therefore that the Hawaiian alphabet should consist only of the following characters.--

A, E, I, O, U, H, K, L, M, N, P, W. ¹²⁶

James Ely was brief and to the point:

¹²⁵ Abraham Blatchely, Honolulu, Hawaii, July 11, 1826, letter to Hiram Bingham and Levi Chamberlain. (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii), pp. 1-3.

¹²⁶ Levi Chamberlain, Honolulu, Hawaii, July 14, 1826, letter to Hiram Bingham and Levi Chamberlain (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii), pp. 2-3.

Report of the Committee
of Health on the State of
the Hawaiian Alphabet

Given July 14 1826

B. & D. are expelled by a lukewarm
vote of a pretty unanimous vote.

R. is deemed of sufficient capacity to
perform its own functions & those of the
council part 2.

L. though two pills have been given to
it it is to remain to do its own office
& that of its yoke fellow R.

R. though closely connected with the outlets
is expelled by a cathartic of 5 or 6
other pills & expectorants though nearly the same
quantity of promucosities have been applied.

T. though claiming rights as a native
member, has suffered amputation by the
knife & saw of majority.

E. a contagious member and claiming

Fig. 12. A joint report by Bingham and Chamberlain
July 14, 1826.

similar degrees have suffered the same
 fate, & a gentle caution has been applied
 to dry the wounds of truth.

The remaining members

A. L. C. W. R. H. L. M. & P. H. are
 all likely to ~~live~~ live and do well,
 so long as the present college of physicians
 have the sole direction of its life and
 health.

By the committee

H. Bingham
 Levi Chamberlain

Fig. 13. Second page of a joint report signed by Bingham and Chamberlain.

As my opinion is requested respecting the use of b, d, r, t, & v, l, k, & w in writing the Hawaiian language I would give it as follows.

Reject b, d, r, t, v.
providing that they be used in spelling foreign words.¹²⁷

Joseph Goodrich wrote from Hilo, Island of Hawaii, under the date of April 3, 1826.

You request my opinion respecting uniformity in spelling the Hawaiian language.

1. Respecting b & d, --b I should say at once might be omitted, for I have no use for it here. The sound of d I distinctly hear in a few words, such as lido, maraida &c--I am ready to drop it, or retain it, just as you please however.

2. Respecting k & t--I have no use for t in this place. I should say therefore exclude it.

3. L & r,--speaking of Hido nei still,--I should exclude the l.

4. As to v & w it is a matter of indifference to me which is excluded,--one answers all the purposes of both.¹²⁸

William Richards wrote a long letter, part of which appears here. His reference to Ellis emphasizes the importance of Ellis' influence on the thinking of the group.

The word Tu may be written Ku and of course may be pronounced either way, . . .

I believe it is very generally agreed that there is a peculiar sound which is something like a medium between the English l & r. I think too, it is generally agreed that the natives do differ

¹²⁷James Ely, April 6, 1826, letter to Hiram Bingham and Levi Chamberlain (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii), pp. 1-2.

¹²⁸Joseph Goodrich, Hilo, Hawaii, April 3, 1826, letter to Hiram Bingham and Levi Chamberlain (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii), pp. 1-3.

among themselves in the articulation of this medium sound; and that some approach nearer to the l or r than others. But if the natives do differ among themselves, or if the sound is neither l nor r, but a medium between the two or if the people are unable to distinguish between the sounds of the letters, then what I said respecting t & k will apply here; . . .

Simplicity is unquestionably one desirable object to be aimed at in establishing the orthography of a language. I am therefore of opinion that only one letter should be retained in each class of interchangables [sic]; and would drop B, D, R, T, V, and only use them in spelling foreign words.

. . .
Were Mr. Ellis present, I should certainly prize and pay great deference to his opinion. . . . I also feel sure that, if a handsome majority of this mission, decide on a particular course, Mr. E will not on his return adopt a plan which shall clash with our proceedings. . . .¹²⁹

Asa Thurston wrote (April 5, 1826), from Kailua,

Island of Hawaii:

The following is the number of consonants found in an old manuscript, designed, as it appears from the document, to have completed the Hawaiian Alphabet in conjunction with the five vowels. viz. h, k, l, m, n, p, w.

I find that these are exactly the number which I have always used in writing the language . . . In my opinion the b & d have no business in the Alphabet. He mea maikai paha e i aku ia laua la, e hele olua pela, he mau mea ino, he mau mea i kolohe mai ai. [Free translation of the Hawaiian: It is well perhaps to discard those two. They are unnecessary & they may cause us trouble hereafter.]

In the second place the k & the t though they are both used, still I should prefer one to both

¹²⁹William Richards, Lahaina, Maui, June 12, 1826, letter to Hiram Bingham and Levi Chamberlain (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii), pp. 2-3.

on the ground of simplicity. It is my wish to strike out the t.

In the third place I shall retain the l & reject the r [paper torn].....

In the fourth place the v & w. Though the v may be used by some few natives whose upper lips are too short, & whose fore teeth are very prominent; yet I question whether the proper sound of the v is found in the language Therefore I should say, e hele pela ae, e ka v nei, he ino loa ka kino pau pu me ko naau. Ae aloha wale [hole in the paper] e ka w la. [Free translation of the Hawaiian: Therefore I should say let us make this decision concerning the v, it is no good at all, it should be completely abandoned. I am strongly in favor of the w.]¹³⁰

Perhaps the climax of all these letters is that of Elisha Loomis, who wrote in Hawaiian, arbitrarily (and wittily) including all the variations of interchangeable letters. His effort must have been more convincing than some of the much more lengthy communications.

Na

Mita Pinamutane, me
Mita Temenena,
Honolulu nei

Tuvaiahao, Oahu
Jurai 5, 1826

Aroha olua

Te hai atu nei vau ia orua i tuu vahi manao no ta hua o ka Barapala o Havaii nei. Ua tari nui vau i ka rohe ana i ta palabara o ta boe Mitaneri mai Havaii a Kauvai, no ta mea i aluaru vau i ta boe itaikao ratou. maraida vau. Hootahi makemate vau, no ka mea i ta hooborolei takou i ta katou barabala, ne ta hooharite. Eia tahi manao i hootomoia i roto kuu obu a buka atu

¹³⁰ Asa Thurston, Kailua, Hawaii, April 5, 1826, letter to Levi Chamberlain (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii), pp. 1-3.

i tuu vahi vaha. I huarele katou teia mau hua
B.D.R.T.V.

E malama takou ta A.E.I.O.U.H.K.L.M.N.P.W.

I na e hoobolorei vauee katou i ta takou
palabara i na ua orioli vau. Ta olua tauva haha
Raumiti

[Free translation by A. F. Judd and P. H.
Buck]

Kawaihao, Oahu

July 5, 1826

My love to you two,

I am sending you my humble thought concerning
the form of writing in Hawaii. I have con-
sidered a long time the written language of the
Missionary group from Hawaii to Kauai because
I concur with the majority of them. That's
where I stand. I wish one thing greatly that we
should all study our writing and make it uni-
form. Here is one idea that has entered my mind
and comes out through my mouth. Let us abandon
these letters [forms] B. D. R. T. V.

We are clear about A. E. I. O. U. H. K. L. M.
N. P. W.

Thus I have put us right concerning our
writing and now I am happy.

Your obedient servant,
Laumiki (Loomis)¹³¹

Along with the foregoing letters, the Committee sub-
mitted a memorandum (July 14, 1826).

With respect to the orthography Mr. Whitney
in a letter to Mr. Bingham remarks "You know
my partiality for the R & W. but I shall contend
for neither. I leave it to the judgment of the
Committee. I pledge myself to abide by their
decision.

Mr. Ruggles has returned no answer.

Mr. Bingham has returned no answer.

Mr. Ellis is regarded as in favor of all the
letters.

¹³¹Elisha Loomis, Honolulu, Hawaii, July 5, 1826,
letter written in Hawaiian, together with a translation
by A. F. Judd and P. H. Buck (MS in Hawaiian Mission
Children's Society Library, Honolulu, Hawaii), pp. 1-2.

Mr. Stewart (as stated by Mr. Bingham) as holding the opinion that none of the characters can be cast out without rendering the alphabet defective.¹³²

In the end the committee collected some nine votes, registering remarkable agreement. A letter dated at Lahaina, Maui, August 5, 1826, contains an extract of the circular sent to all the missionary stations by Messrs. Bingham and Chamberlain, and a list of the votes thus:

Votes for Striking Out	
B.....9 votes	P.....none
D.....8 votes	L.....2 votes
K.....0	T.....8 votes
V.....9 votes	W.....0
R.....6 votes	

This eliminate , <d>, <v>, <r>, and <t>, and retained <k>, <p>, <l>, <w>, which now could be placed with <m>, <n>, <h>, about which there had never been any question. This would have been the ideal time to add symbols for the glottal stop and for phonemic length; that such symbols were not included is regrettable.

But the missionaries were not phonemicists, nor linguists of any sort except in a practical, self-taught

¹³²(n.a.), Letter respecting the opinions of Whitney, Ruggles, Bingham, Ellis, and Stewart, July 14, 1826 (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii), p. 1.

¹³³Hiram Bingham and Levi Chamberlain, Lahaina, Maui August 5, 1826, joint letter to Rufus Anderson (MS 136 in ABC Collection, Houghton Library, Harvard University), p. 3.

manner. The only help they had came from another practical linguist, Ellis, and from the more contemplative Pickering, behind whom stood the philosophical Duponceau. It must be said with no more than a minimum of reservation that they did astonishingly well. Anyone who has occasion to experience the relative ease of reading or writing Hawaiian will testify that, without ever having heard of phonemics, the missionaries nevertheless applied its principles with remarkable success to the devising of an alphabet for a language that had none.

Summary

Linguistic Considerations

Graphemic Analysis

Classes of Words.— During this period of Hawaiian history many loan words from Biblical texts were introduced, which were partially or completely assimilated into the orthographic system adapted to Hawaiian. Such words as Isaka for Isaac, Jekoba for Jacob represent examples of partial assimilation. Ioane for John, Luka for Luke, Paulo for Paul, Mose for Moses, and Noa for Noah illustrate complete assimilation.

Fit Ratios.— The general tendency was for the orthographic systems used by the missionaries to become more

phonemic with each successive revision. The fit ratio computed from Bingham's notes is one-to-one (1:1) for vowels, diphthongs, and consonants.¹³⁴ This writer has noted that the orthographies reconstructed from personal correspondence seem to reveal a less phonemic system than that found after analyses of the various published orthographies. Additional research in this area would have strengthened this study considerably.

Phonemic-Graphemic Analysis

Influenced as they were by the writings of Pickering and Duponceau, the missionaries adhered very closely to the phonemic goals recommended today as criteria for the choice of an orthography for an unwritten language. With a knowledge of phoneme theory together with an understanding of phoneme-allophone relationships, the dilemmas posed by submembers of phonemes, freely fluctuating varieties, and free variation could have been resolved by the New England missionaries.

The phonemic characteristics associated with variations in vowel length was an area which continued to be neglected in missionary times. However, syllabic stress was treated

¹³⁴Bingham, Spelling Book and Select Scriptures,
op. cit.

in a cursory fashion in the first primers printed in Hawaiian.

Socio-Linguistic Point of View

Pike's criteria for a practical orthography will be reviewed in each division of this summary, followed by the discussion by this writer.

Acceptability

A practical orthography should be acceptable to the people of the region where it is introduced. It should receive popular support and approval. In order to become literate people must first have a fervent desire to read if they are to do so with relative ease.¹³⁵

The data included in this chapter document the conclusion that the Hawaiians of every class embraced the opportunity to learn to read and write their own language. The dissident attitudes of some were not directed so much toward acceptance or rejection of the alphabet as toward the moral code accompanying the introduction of Christianity.

Familiarity

It is preferable to introduce no strange letters;

¹³⁵Pike, op. cit., p. 211.

i.e., to avoid symbols which are not found in the trade language or the national language of the area.¹³⁶

The missionaries adopted a select group of symbols from the Roman alphabet and did not introduce any bizarre except for the possible exception of <'>, used to represent the glottal stop.

Diacritics

Diacritic marks should be avoided where possible. Some letters introduced from English, such as the <i> carries a diacritic mark in the form of a dot.

Diacritics were not used in the early alphabets and did not appear in any uniform way in the imprints studied. A letter signed by Bingham, Thurston, Stewart, Bishop, Blatchely, Goodrich, Ely, Chamberlain, and Loomis and addressed to the American Board, requested the following accented letters: <ā>, <ē>, <ī>, <ō>, <ū>, <ǎ>, <ě>, <ǐ>, <ǒ>, <ǔ>, <â>, <ê>, <î>, <ô>, <û>, <à>, <è>, <ì>, <ò>, <ù>, <á>, <é>, <í>, <á>, and <ú>. It is not known by this writer what use was made of these letters for the press or if they were ever received in Hawaii.¹³⁷ It is the

¹³⁶Ibid.

¹³⁷Hiram Bingham et al., letter to the American Board, (n.d.) (MS in Houghton Library, Harvard University).

contention of Pike that a profusion of diacritics would tend to make the learning process more tedious and greatly slow down the writing of the language. This danger was certainly averted in Hawaii, if the evidence uncovered by this worker is considered.

Facility and Flexibility

Symbols should be chosen with consideration of the ease with which they can be printed, using presses in common use. The more easily materials can be printed the more rapidly they may be made available to the people. If material is to be readily printed the letters of the Roman alphabet should be used to best advantage.¹³⁸

The missionaries chose their orthographic symbols from the Roman alphabet and introduced no bizarre variations of symbols which would present difficulties in printing on the Ramage Press or complicate the writing of the language in the schools.

Adequacy

It is desirable to have an alphabet which is adequate for teaching illiterates to read. The orthographic system adapted and revised for the writing and printing of

¹³⁸Pike, op. cit., p. 212.

Hawaiian seems to have been adequate for the task, if the records of the period are studied. The Hawaiian pupils surprised the missionary teachers by the rapidity with which they were able to read and write. See page 130, where evidence indicates that Liholiho learned to read in approximately three and a half months.

Adaptability

The new alphabet should be adapted to the needs of bilinguals in the same area so that a native who, with great effort, learned to read the trade language /English/, but does not understand it well, may be able to utilize the same alphabet in reading his own first language, which he can understand once he hears it.¹³⁹

The orthography adapted to Hawaiian was such that the graphemes could be used in printing or writing either English or Hawaiian. The spelling of foreign words, however, required the use of graphemes not used in writing Hawaiian such as , <d>, <f>, <g>, <s>, <z>, <ng>, and others.

Dialectal Spread

"The alphabet chosen should represent insofar as possible a wide area."¹⁴⁰ When possible the symbols

¹³⁹Ibid.

¹⁴⁰Ibid., p. 213.

decided upon should serve more than one dialect.

No data is available in the material processed by this writer concerning the dialectal variations in spoken Hawaiian in pre-missionary and missionary times. The missionaries seem not to have encountered serious problems in adapting the alphabet to the regional variations in the language. Further research into this phase of the history might prove profitable in the future.

Acceptance of Loan Words

In an analysis of this type it is necessary to observe the strength of the tendency for incorporation of loan words from the trade language into the native language. Some language communities resist the acceptance of loan words.

If many words are being introduced from the trade language this fact gives intensity to the desire to make the vernacular alphabet coincide with that of the trade language. Similarly, if bilingualism is increasing rapidly, the pressure would be toward utilizing the symbols used in the trade language.¹⁴¹

Many loan words were introduced into the reading and writing vocabularies of the people because of the increased use of Biblical terms through the program of religious education. The growth of secular education was responsible for

¹⁴¹Ibid.

the introduction of additional loan words into the language. As illustrated in Chapters IV and V, many imprints were used in order to acquaint the Hawaiians with the concepts of geography, mathematics, Latin, surveying, navigation, etc. Through both religious and secular education, such diverse words as misionari (missionary), Ioane Buniana (John Bunyan), buke (book), himeni (hymn), Hudesona (Hudson), Misisipi (Mississippi), and many more became familiar to a generation of islanders learning to read their own language for the first time in the history of their culture. See Figures 40, 41, 43, and 48 in Chapter IV.

Literacy Campaigns

The more primers being introduced in the vernacular, the greater is the pressure towards using [an] adequate phonemic alphabet [alphabets], especially if there is a concerted attempt to carry on literacy campaigns for adult monolinguals, for whom primers need to be readily teachable with alphabets which are easily absorbed.¹⁴²

The period from 1820 through the turn of the century involved one Kingdom-wide literacy campaign. The first alphabet introduced by the missionaries was practical and teachable in spite of its deviations from phonemic

¹⁴²Ibid.

principles. Improvements stemming from the revision of 1826 increased the practicality and uniformity of the orthography further.

Cultural Anthropological Considerations

In studying the cultural history of Hawaii, the antecedents to change beginning with first contact with foreigners, and the cultural fatigue following the death of Kamehameha I constituted prime forces stimulating change. The subsequent introduction of Christianity and an alphabetic system of writing appear to have been the prime forces involved in the cultural diffusion dealt with in this study.

This writer's opinion that there was general acceptance of the alphabet rests on the evidence presented in this and other chapters. Resistance developed however, toward Christianity when the moral standards of the people were questioned by the outsiders. This resistance was shared by foreign business men residing in the Islands and by the crews of ships and their captains.

The influence for change exerted by organized religion cannot be overstated. Since the old religion of the people had been abolished officially prior to the arrival of the missionaries, Christianity served to fill the resulting cultural void. Also there was a tendency for

cultural diffusion to continue along new avenues as the products of the presses turned out reading materials in greater numbers and in a wider variety of subjects. This facet of the history and that concerned with the growth of secular education are discussed in the following two chapters of this work.

CHAPTER IV

PALAPALA: THE PRINTED AND WRITTEN WORD

Historical Perspective

Palapala, the Hawaiian word for writing of any kind, seems singularly appropriate as a title for this chapter, which serves as a sequel to the preceding phase of this history in that it recounts the many uses of the newly revised alphabet. Since descriptions alone of these many and varied imprints, would have proved tedious, and since many of the materials are not easily accessible to some of those who may wish to study this subject, numerous photographs have been interspersed with the text.

The Hawaiians in their early contact with the missionaries used palapala to refer to the Scriptures or to learning in general. Variations in the usage of the term recorded by Pukui and Elbert include such definitions as writing and printing in whatever form they are found, whether printed on kapa cloth or cartridge paper.¹ A letter written by Kamehameha from Oahu to the American Board, illustrates his use of the term palapala.

¹Pukui and Elbert. Hawaiian-English Dictionary (Honolulu: University of Hawaii Press, 1961), p. 285.

King Kamehameha II, in his own hand writing.

Oahu March 18, 1823

E Ha pro. American Board

Iroha iro oukou E nohonui la
 i America, E ia lau wahi oloso ia oukou a
 pau ouas iho miakou iho Palapala uaiti
 iho mi makou ua loko iho mi makou iho lono
 mitai a Iehova, ua melomela oua makou iho
 as mitai mai a Iesu Ivaist mitai no
 wale akou kana as mai iho Ivaist Akaki no
 makou Anau was ihonui. Iouha ia mai nei
 makou a Iehova. Iho ua mai nei ia M.
 Bingham ane M. Thurston a melomela ^{kumu} oua
 iroha as nei iro makou ua naau as as nei
 to makou mau aia wa o lili oua to makou mau
 iho lili oua as mitai mai ia makou. walea di
 oua, to makou naau iho Iehova lono ana mai ia
 makou. pumwila ia wahi oloso ia nei wahi oloso
 oua: walea no paha makou maua iho maua iho
 iho wale iho mai oukou, he luo laau to makou
 iho maua maua iho makou maua maua
 iho iho nei haavere ou iho luo laau
 Bonaka luo haavere maua iho mai ia
 ia M. Bingham ane M. Thurston ane to
 pro luo oua

Fig. 14. First page of a letter written by King Kamehameha II [Liholiho] illustrating the use of the word palapala.

To the body of the American Board. Great affection for you all, dwelling together in America. This is my communication to you all. We are now learning the palapala, reading and writing etcetera.²

The words of Hiram Bingham serve as a fitting introduction to the era of the written and spoken word in the Hawaiian Kingdom.

On the seventh of January, 1822, a year and eight months from the time of our receiving the governmental permission to enter the field and teach the people, we commenced printing the language in order to give them letters, libraries, and the living oracles in their own tongue, that the nation might read and understand the wonderful words of God.³

A considerable number were present, and among these was Keeaumoku who manifested a particular interest in the press. After some instruction from Mr. Loomis, he began to operate the Ramage press, showing much pleasure in assisting in running off a few impressions of the first lessons. Those who had learned to read by manuscript eagerly "consumed" these first impressions.⁴

When King Liholiho first examined the printing press

²Letter written by King Kamehameha II from Oahu, Hawaii, March 18, 1823 to the American Board [handwritten original in Hawaiian] (MS in Houghton Library, Harvard University).

³Hiram Bingham, A Residence of Twenty-One Years in the Sandwich Islands Or The Civil, Religious, and Political History of Those Islands (New York: Sherman Converse, 1847), p. 156.

⁴Ibid.

in one of the grass houses that the Hawaiian government had built for the missionaries, a sheet of white paper being laid on, he pulled the lever around, and was surprised to observe the sheet covered with printed words in his own language.⁵

It is said that Liholiho had some shrewdness in his personality makeup and an uncommon degree of confidence in his own attainments and abilities. Being asked whether <l> or <r> should be used in spelling his name, he attempted to articulate the differences between the two speech sounds, and finally gave the preference to <r>, though Bingham held that <l> was doubtless the better choice to represent the initial sound in the name Liholiho.⁶ Many of the foreigners present, however, agreed with the King in his choice.

The danger of fire in the grass houses led to the decision to build a more permanent printing house in "Missionary Row", as the missionary buildings were collectively called.⁷ The inside walls were covered with kapa cloth and on November 21, 1823, the roof of the printing house was completed, the workmen paid off and dismissed.

⁵Ibid.

⁶Ibid., p. 156.

⁷Paper prepared by Mrs. Margaret S. Schlieff, "Concerning the Mission Printing House," Hawaiian Mission Children's Society Staff Members (Honolulu, Hawaii, July, 1967).

By December 2, 1823, the printing house was so nearly finished that Loomis set up the printing press. Bingham employed himself levelling and securing the printing press which had been moved from the grass hut into the new printing house.⁸

Eventually a three-story stone house was built and the historic twenty-eight by seventeen-foot coral building of 1823 was used to supplement the living accommodations of the frame house.⁹ From these humble beginnings issued a variety of publications giving the people of Hawaii hymnals, spelling books, dictionaries, religious tracts and school texts. Not all of the imprints included in this survey are the products of the original Ramage press, but they were initiated by the same motivation of the missionary company, so aptly described by Hiram Bingham in his discussion of the first printing done in Hawaii.¹⁰

These imprints resulted from the introduction of Christianity and of an orthographic system, making it possible to write and print the Hawaiian language for the

⁸Levi Chamberlain, *Chamberlain Journal*, Vol. 2, (Hawaiian Mission Children's Society Library), p. 45.

⁹Ibid.

¹⁰Bingham, A Residence of Twenty-One Years in The Sandwich Islands; Or the Civil, Religious, and Political History of Those Islands, op. cit., p. 156.

first time in the history of Hawaii.

The technical aspects of how the press operated and the types of paper used this writer will leave to historians already engaged in studies of these aspects of the history of printing in Hawaii. Mrs. Schlieff, of the Mission Printing Office in Honolulu, has supervised the construction and installation of a working replica of the original Ramage press, so that once again the press can print materials which might otherwise be lost to antiquity.

It was a rare experience being privileged to stand beside the new Ramage press and watch the printing of the single sheet containing the alphabet originally introduced to the Hawaiians in the 1820's. The press of today, constructed of native Koa wood, is the epitome of form-follows-function and is, on this account, beautiful. How many reflections of past history crowded into the printing room that day in the summer of 1967, as Mrs. Shlieff explained the process to this writer: reflections of Loomis and his dedication to his craft; of Liholiho who was not quite certain about the spelling of his name; and of the Hawaiian boy, Henry Opukahaia and his prayers that "some good men" would go to Hawaii to enlighten his people. Henry Opukahaia, in his most imaginative moments, could not have foreseen the role the printed and written word was to play in shaping and directing the changes which

were to take place in the Hawaiian Island culture. If the imprints available to the scholar in the libraries at Harvard, Yale, Newberry, University of Hawaii, the Hawaiian Historical Society, and the Hawaiian Mission Children's Society Library are studied, one obtains an idea of the breadth and scope of the subject matter printed for dissemination to the native Hawaiian readers.

Basic Textbooks

Reading-Spelling

The first printings dealt with the problem of presenting the Hawaiians with an orthographic system which they would have to accept and learn before they could enjoy the experiences of reading and writing. The first evidence uncovered by this worker dealing with the alphabet was the "Select Scriptures and Materials for Spelling Book" written by Hiram Bingham in 1822 (see Figures 15 and 16).¹¹

O Ke Kumunua Na Na Kamalii, another beginning reader for Hawaiian children, was published on the island of Oahu in 1835. The picture of a common object or an animal is presented along with a text, first describing the object

¹¹Bingham, "Select Scriptures and Materials for Spelling Book," 1822 [handwritten original in English and Hawaiian] (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii).

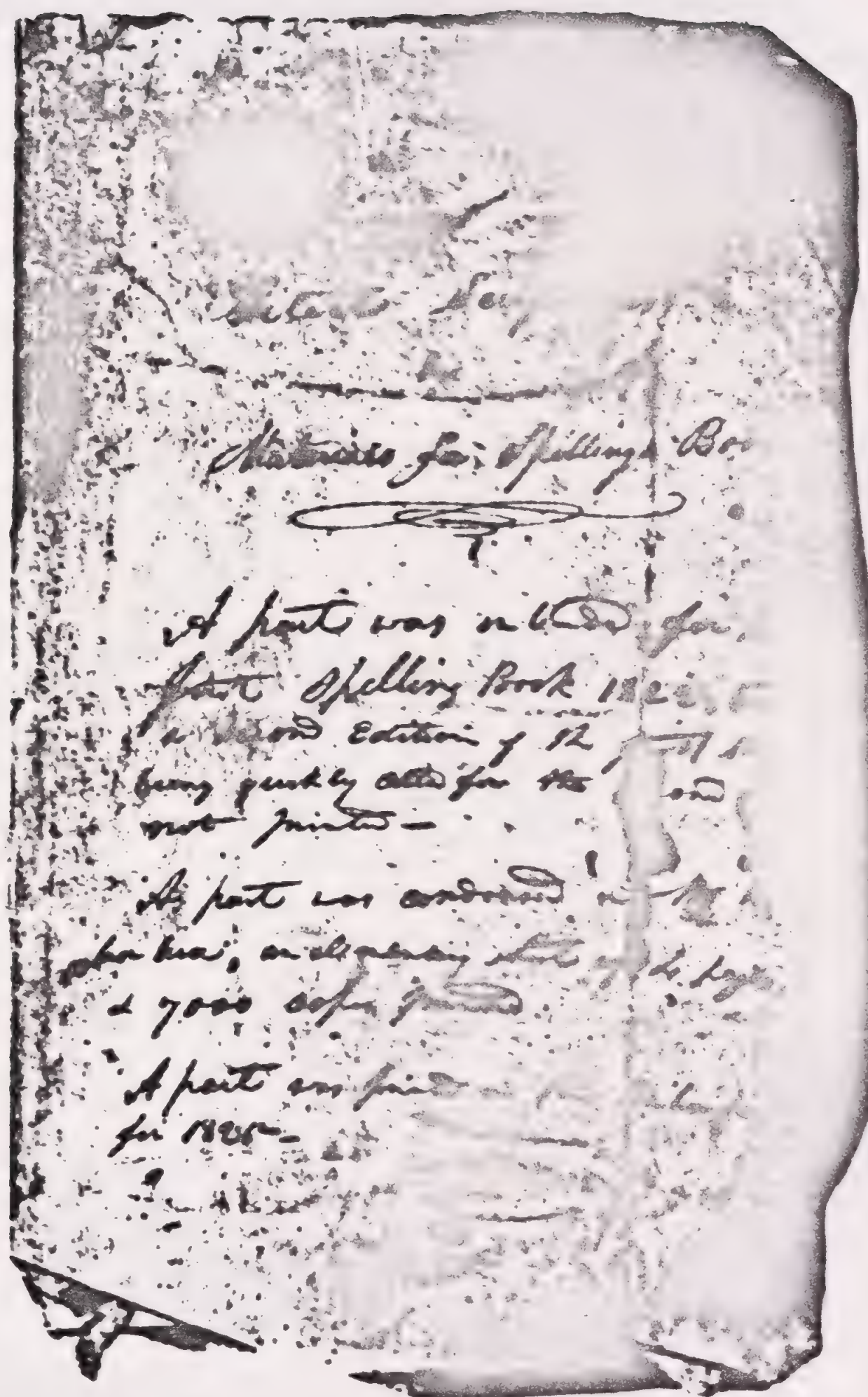


Fig. 15. Handwritten introduction to "Select Scriptures and Materials for Spelling Book" by Hiram Bingham.

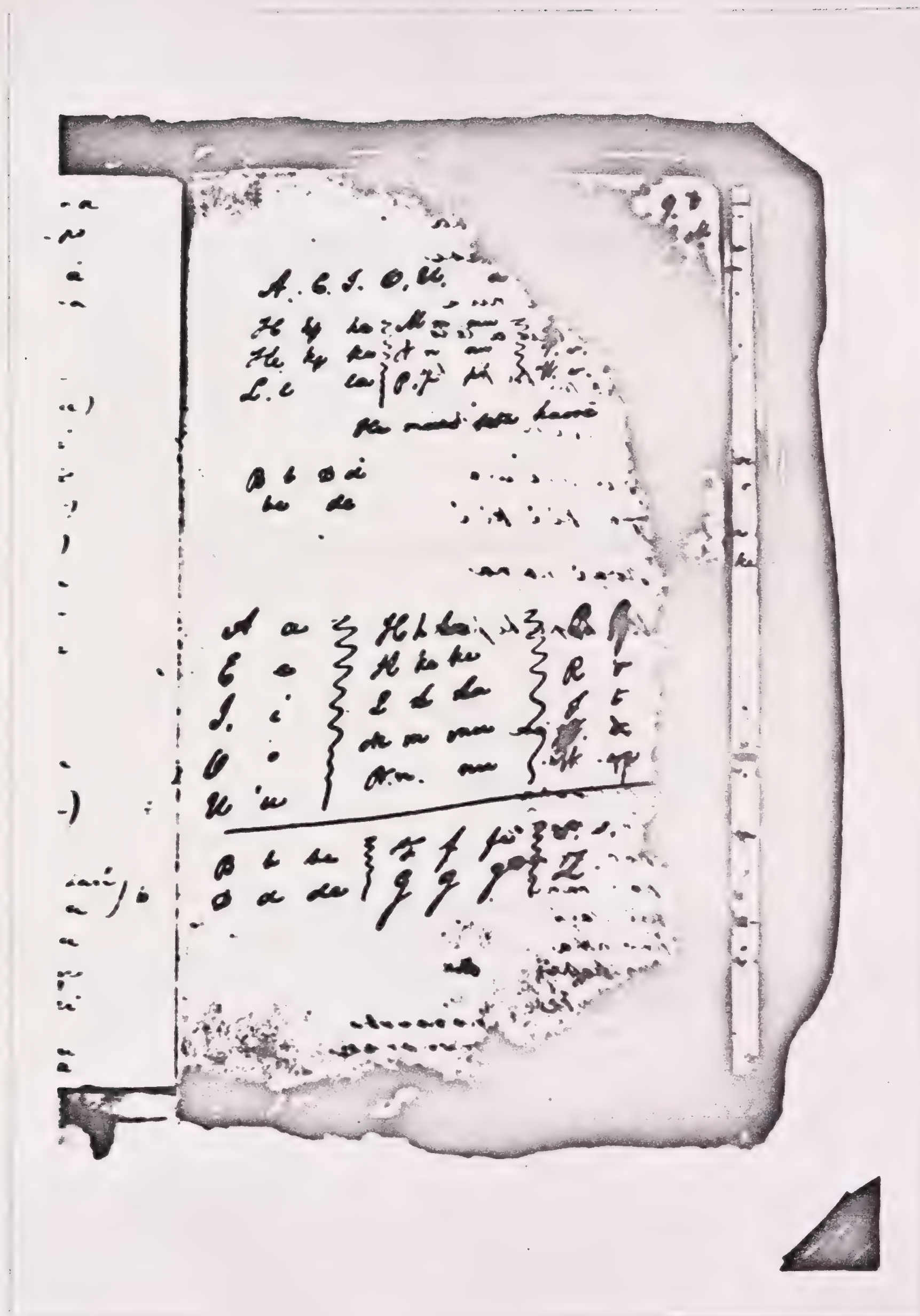


Fig. 16. Second handwritten page from "Select Scriptures and Materials for Spelling Book" by Hiram Bingham, illustrating notes on an alphabet for Hawaiian.

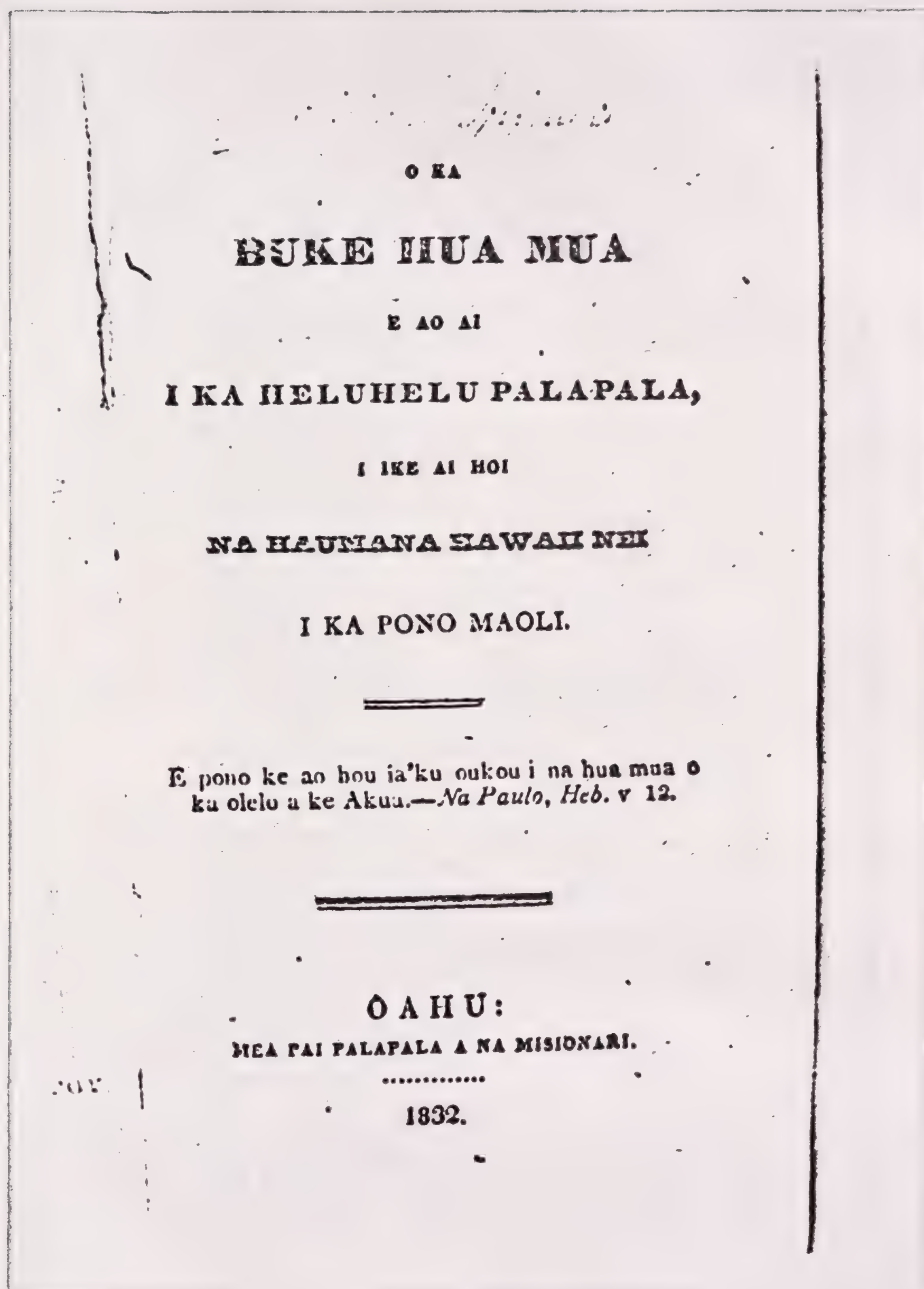


Fig. 17. Title page of Hawaiian primer found in the Hawaiian Imprints Collection of Andover-Harvard Theological Library, Cambridge, Massachusetts.

O KA

BUKE HUA MUU

E AO AI

I KA PALAPALA.

Ka Pi-a-pa, . . . 3	Na Adelaido, . . 91
Ka Hope Pi-a-pa, 15	Na Adama, . . . 92
Ka Pooolelo, . . 25	Na Alekanedera, 92
Ka Ui, 30	Ka Palapala a
Ke Kanawai, . . 41	Mr. Evati, . . 94
Ka Olelo a Iesu	Na olelo hoakaku, 96
ma ka mauna, 46	No ka Laau, . . 96
Ka Olelo Ao, . . 63	No ka Rama, . . 98
Ka Manao o na'hi, 77	No ka Hoolan, 103
Na Kauikeaeuli, 77	No ke ao ana, . 105
Na Kalaimoku, . 80	No ka pauku, . 106
Na Kaahumanu, 33	Ka Palapala a
Na Nahienaena, 85	Kinau, 107
Na Wiliama IV., 86	Ka Halehu I, . . 108

OAHU:

MEA PAI PALAPALA A NA MISIONARI.

816.9
Hawaiian
1832

1832.

Fig. 18. Table of contents for the Hawaiian primer

PI-A-PA.

A E I O U a e i o u

H h he N n nu

K k ke P p pi

L l la W w we

M m mu

B b D d G g R r S s T t V v Z z

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20

I II III IV V VI VII VIII IX X XI
XII XIII XIV XV XVI XVII
XVIII XIX XX

, . - ? ! " — " (—) [—] ¶ § *

I.	pa pe pi po pu
Ha he hi ho hu	wa we wi wo wu
ka ke ki ko ku	III.
la le li lo lu	Ae ni no ou
II.	ci cu ou ua
ma me mi mo mu	aa ee ii oo uu
na ne ni no nu	moo poolaa luu hee
	waa keo lii hoo puu

Fig. 19. First page of the Hawaiian primer, including the alphabet and numerals.

and then presenting simple sentences designed to integrate the newly presented words into meaningful context.¹²

Levi Chamberlain's spelling book,¹³ contained the alphabet for writing Hawaiian and foreign words; diphthongs; Lesson One: syllables; Lesson Two: double vowels pronounced separately; Lesson Three: Diphthongal syllables; Table II: Hawaiian words of one syllable; Table III: Hawaiian words of two syllables, accented on the first syllable; Table IV: First exercise in reading; Table V: words of two syllables, accented on the second syllable; Table VII: Hawaiian sentences; Table VIII: words of three syllables, accented on the second syllable; Table IX: Hawaiian sentences; Table X: words of three syllables, having accent on the first syllable, and the full accent on the third syllable; Table XI: sentences; Table XII: words of four syllables, accented on the first and third syllables, together with a section on grammar (see Figures 20 through 25).

In contrast to this first example of a spelling book, My First Book of Reading and Spelling, published in 1845, presented the English orthographic system along with

¹²O Ke Kumumua Na Na Kamalii; He Palapala E Ao Aku Ai I Na Kamalii Ike Ole I Ka (Oahu: 1835), pp. 3-16.

¹³Chamberlain, Hawaiian Spelling Book: First Edition Oahu, May, 1823 [handwritten and printed in English and Hawaiian] (MS in Hawaiian Mission Children's Society Library, Honolulu, Hawaii).

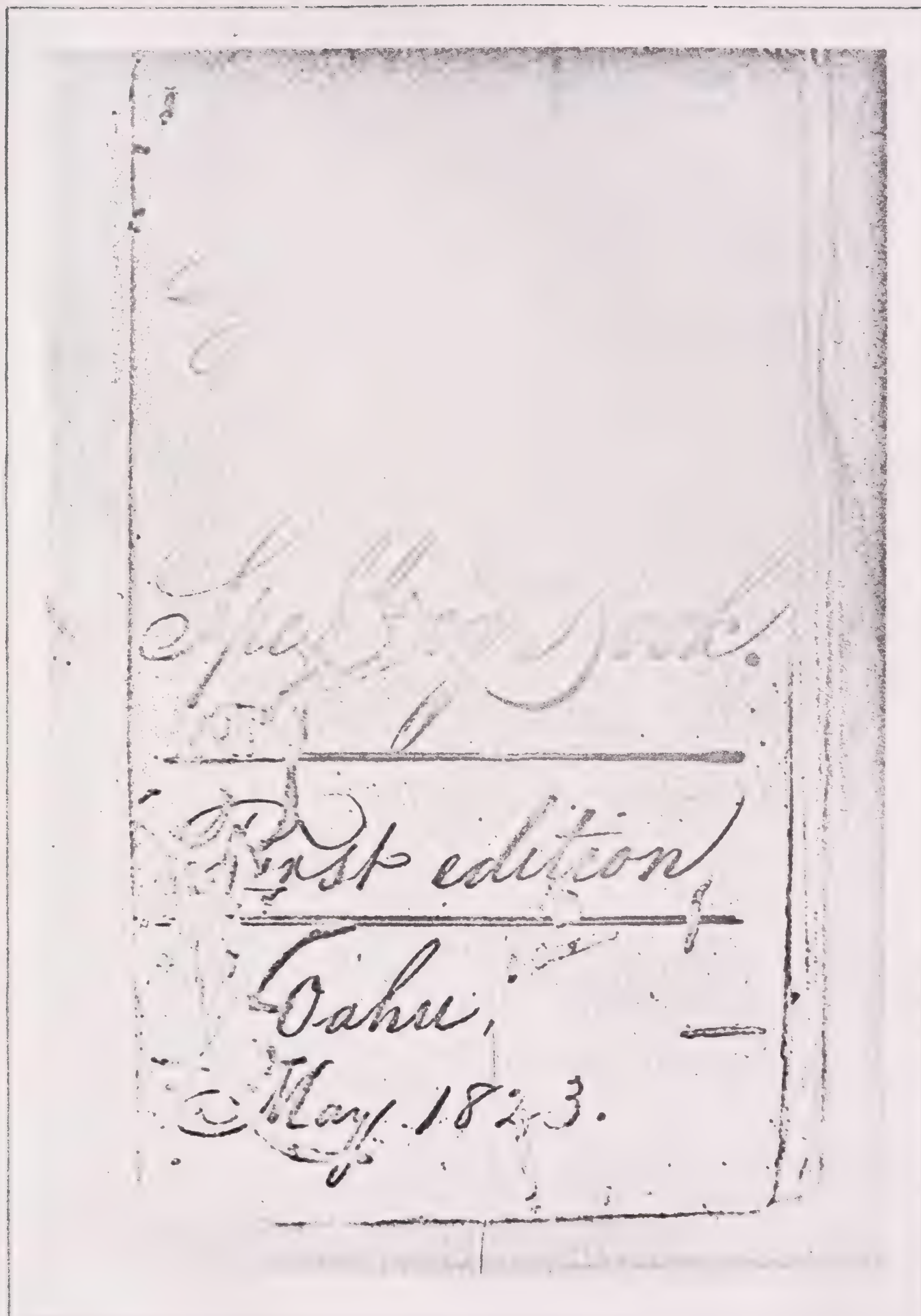


Fig. 20. Front page of Levi Chamberlain's Hawaiian Spelling Book

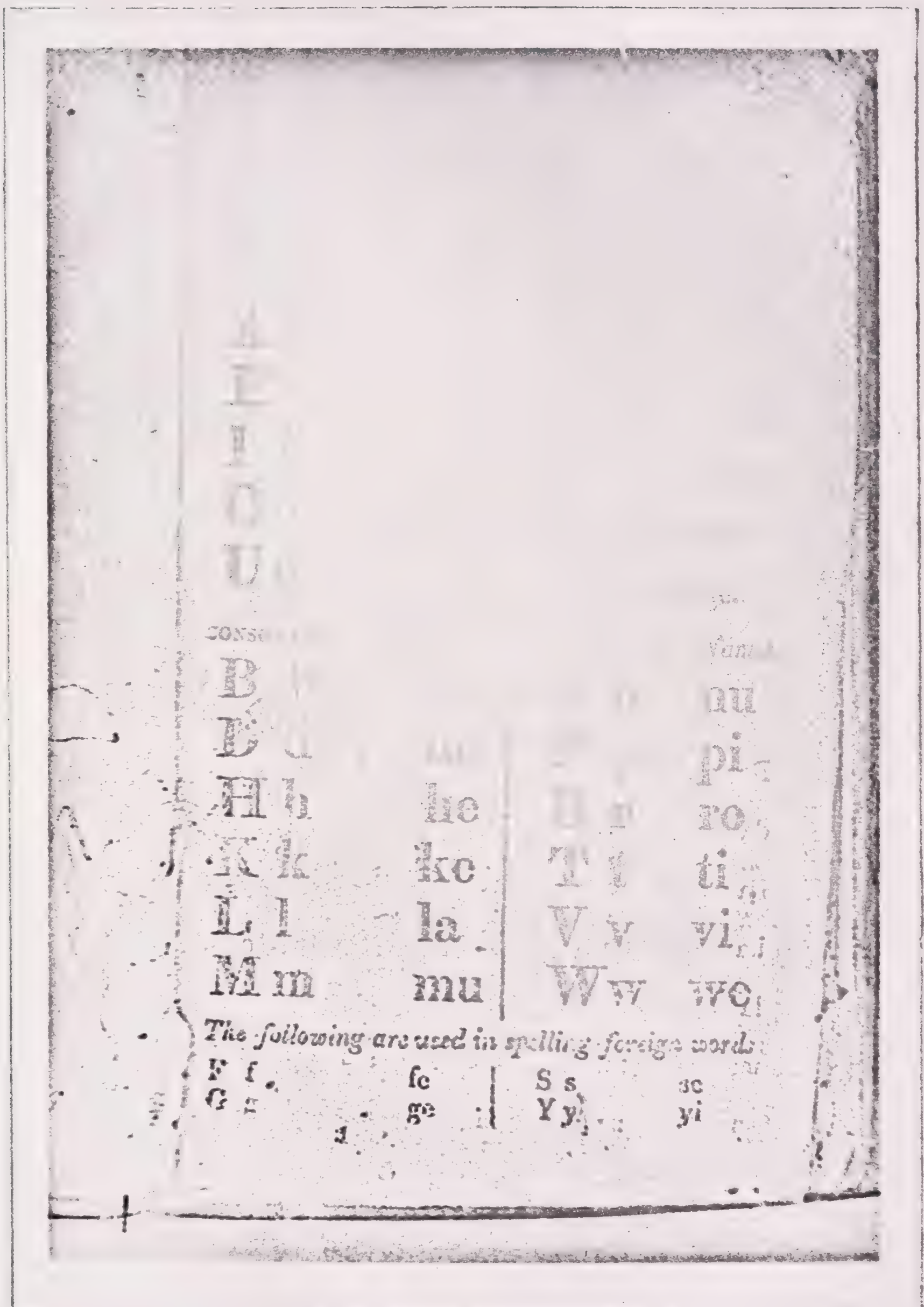


Fig. 21. Levi Chamberlain's Hawaiian Spelling Book, alphabet for writing vowels, consonants and foreign words.

<p> Aa Ai Au Aw Ei Eu Ou </p>	<p> as a followed closely by i as o followed closely by u </p>	<p>TABLE I.</p> <p>LESSON 1.</p> <table> <tr> <td>Ba</td><td>be</td><td>bi</td><td>bo</td></tr> <tr> <td>da</td><td>de</td><td>di</td><td>do</td></tr> <tr> <td>ea</td><td>he</td><td>hi</td><td>ho</td></tr> <tr> <td>ka</td><td>ke</td><td>ki</td><td>ko</td></tr> <tr> <td>la</td><td>le</td><td>li</td><td>lo</td></tr> <tr> <td>ma</td><td>me</td><td>mi</td><td>mo</td></tr> <tr> <td>na</td><td>ne</td><td>ni</td><td>no</td></tr> </table>	Ba	be	bi	bo	da	de	di	do	ea	he	hi	ho	ka	ke	ki	ko	la	le	li	lo	ma	me	mi	mo	na	ne	ni	no	<p> Ae ai ao au ei eu ou </p>
Ba	be	bi	bo																												
da	de	di	do																												
ea	he	hi	ho																												
ka	ke	ki	ko																												
la	le	li	lo																												
ma	me	mi	mo																												
na	ne	ni	no																												

Fig. 22. Levi Chamberlain's Hawaiian Spelling Book,
 alphabet and pronunciation key for diphthongs and
 Table I, Lesson 1.

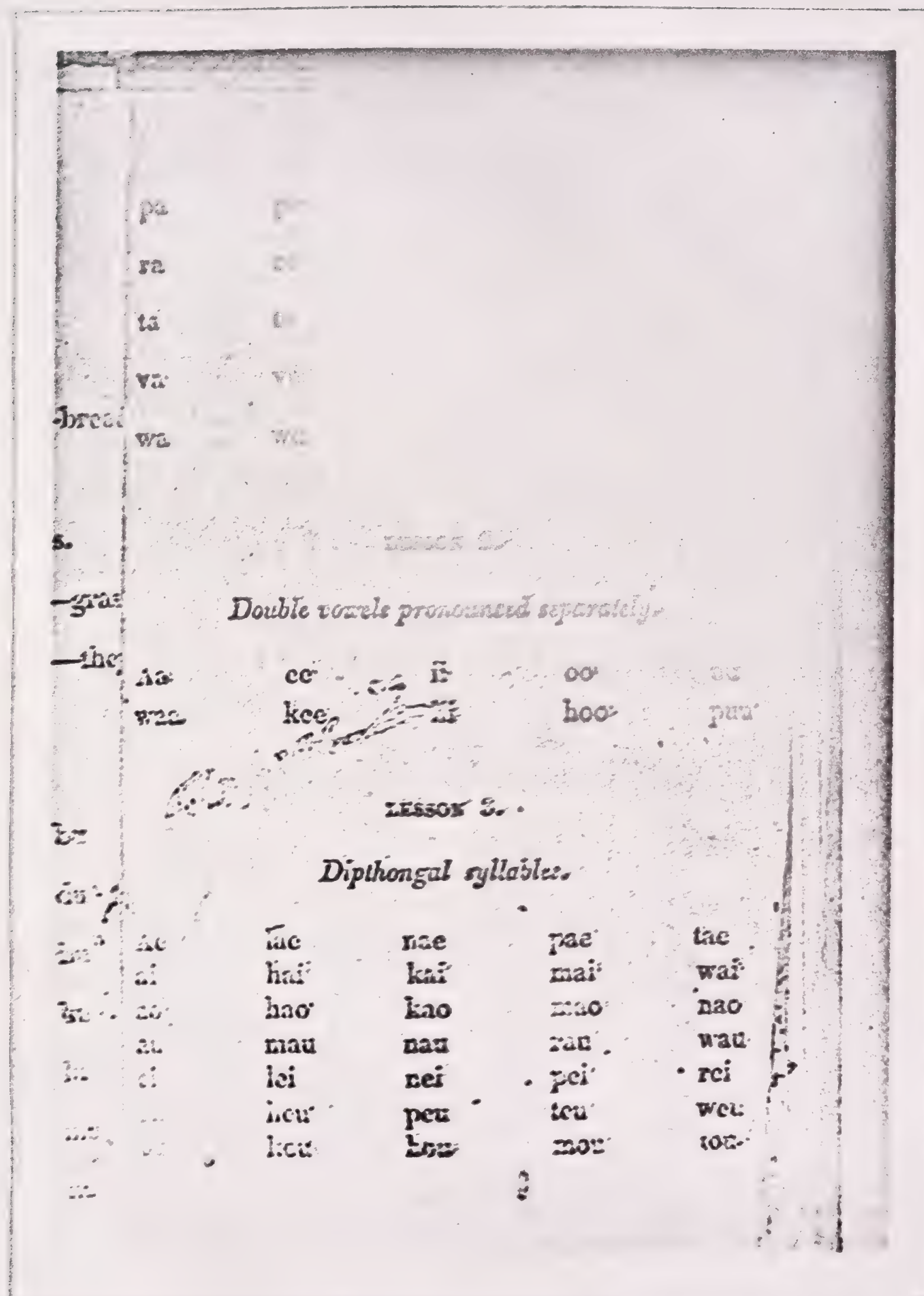


Fig. 23. Levi Chamberlain's Hawaiian Spelling Book, syllables, double vowels pronounced separately, and Lesson 3--diphthongal syllables.

syllables, words, and sentences in English¹⁴ (see Figures 26 through 32).

Vocabularies and Dictionaries

From the very earliest period of missionary endeavors in Hawaii, there was a need for vocabularies of the language for the use of foreigners as well as Hawaiians. One of the earliest vocabularies collected by Loomis and transcribed by Andrews on the voyage from the United States, was introduced in 1828.¹⁵ In making use of Loomis's work, Andrews attempted to insert every new word which he saw in print, heard in conversation, or could obtain in any other way.¹⁶

Besides correcting the mistakes that had been made in transcribing the copy of Loomis, Andrews' habit was to note the authority for the spelling and definitions, when this was possible. Many mistakes were made both in the orthography of the words and in some of the definitions noted.¹⁷

Andrews used another source, a vocabulary of words

¹⁴My First Book of Reading and Spelling (Honolulu: Press of the American Mission, 1845), pp. 1-7.

¹⁵Lorrin Andrews, A Vocabulary of Words in the Hawaiian Language (Maui: Press of the High School, 1836).

¹⁶Ibid., Preface.

¹⁷Ibid.



Fig. 26. First page of My First Book of Reading and Spelling

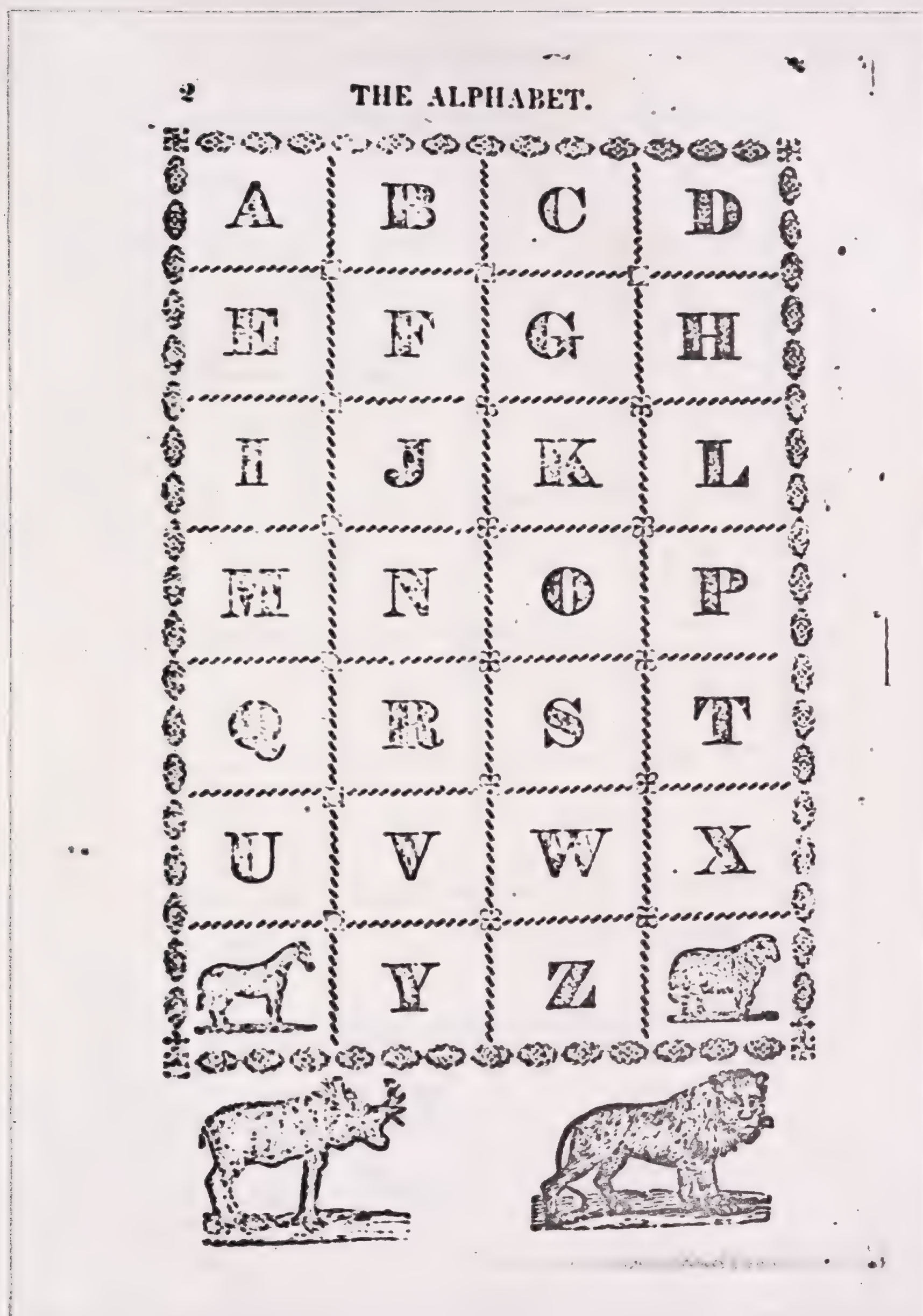


Fig. 27. My First Book of Reading and Spelling, illustrating the English alphabet in upper case letters.

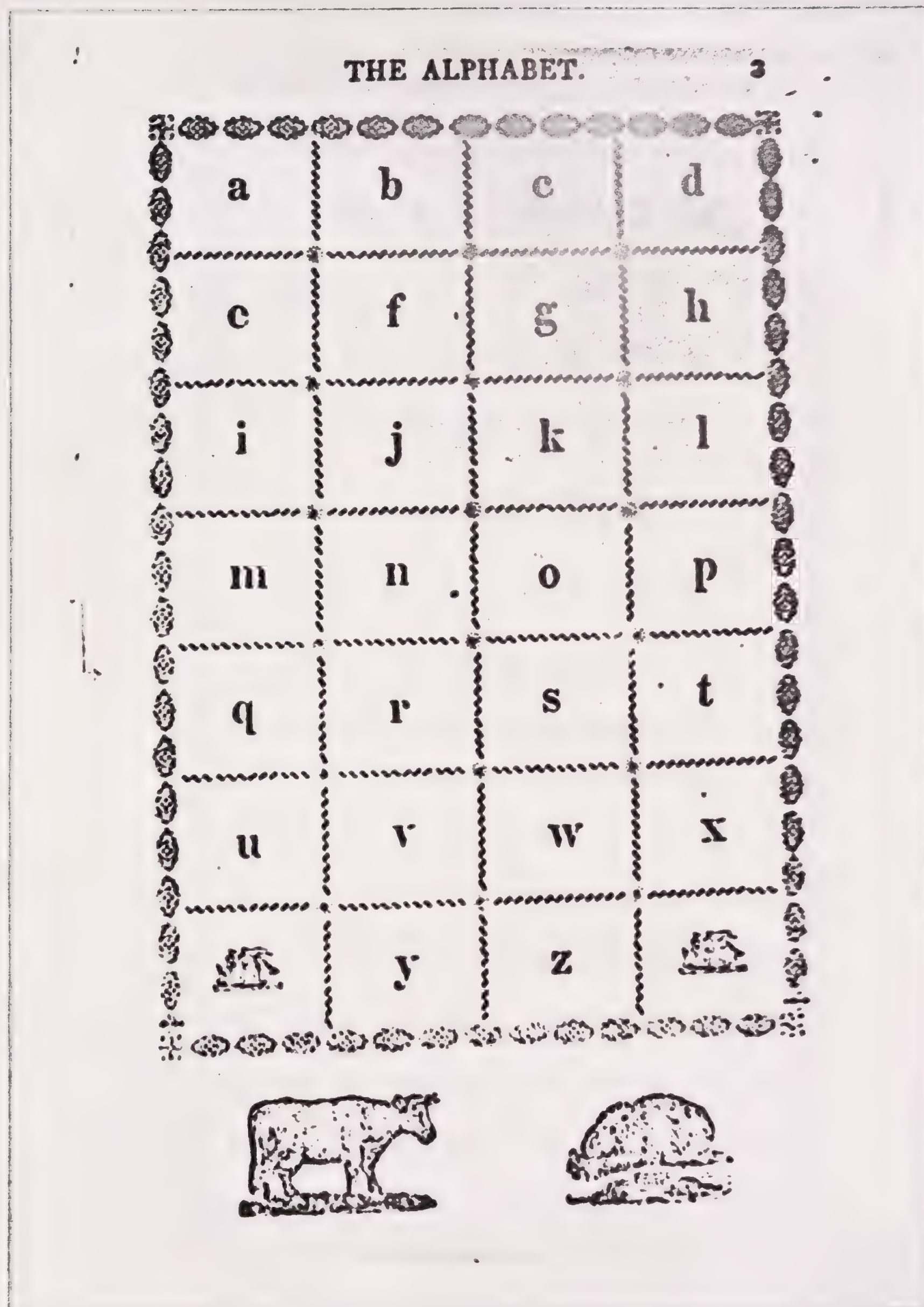


Fig. 28. My First Book of Reading and Spelling,
illustrating the English alphabet in lower case letters.

LETTERS PROMISCUOUSLY ARRANGED.

D H L P T X Z
 B F J N R V Y
 C G K O S W A
 I M Q U
 z w s o k e f t l h v
 r n a x i b p m a j
 e g y q p

FIRST TRIAL OF SPELLING.

ab eb ib ob ub	al el il ol ul
ac ec ic oc uc	am em im om um
ad ed id od ud	an en in on un
af ef if of uf	ap ep ip op up
ag eg ig og ug	as es is os us
ak ek ik ok uk	at et it ot ut

Fig. 29. My First Book of Reading and Spelling, illustrating the letters of the English alphabet "promiscuously" arranged.

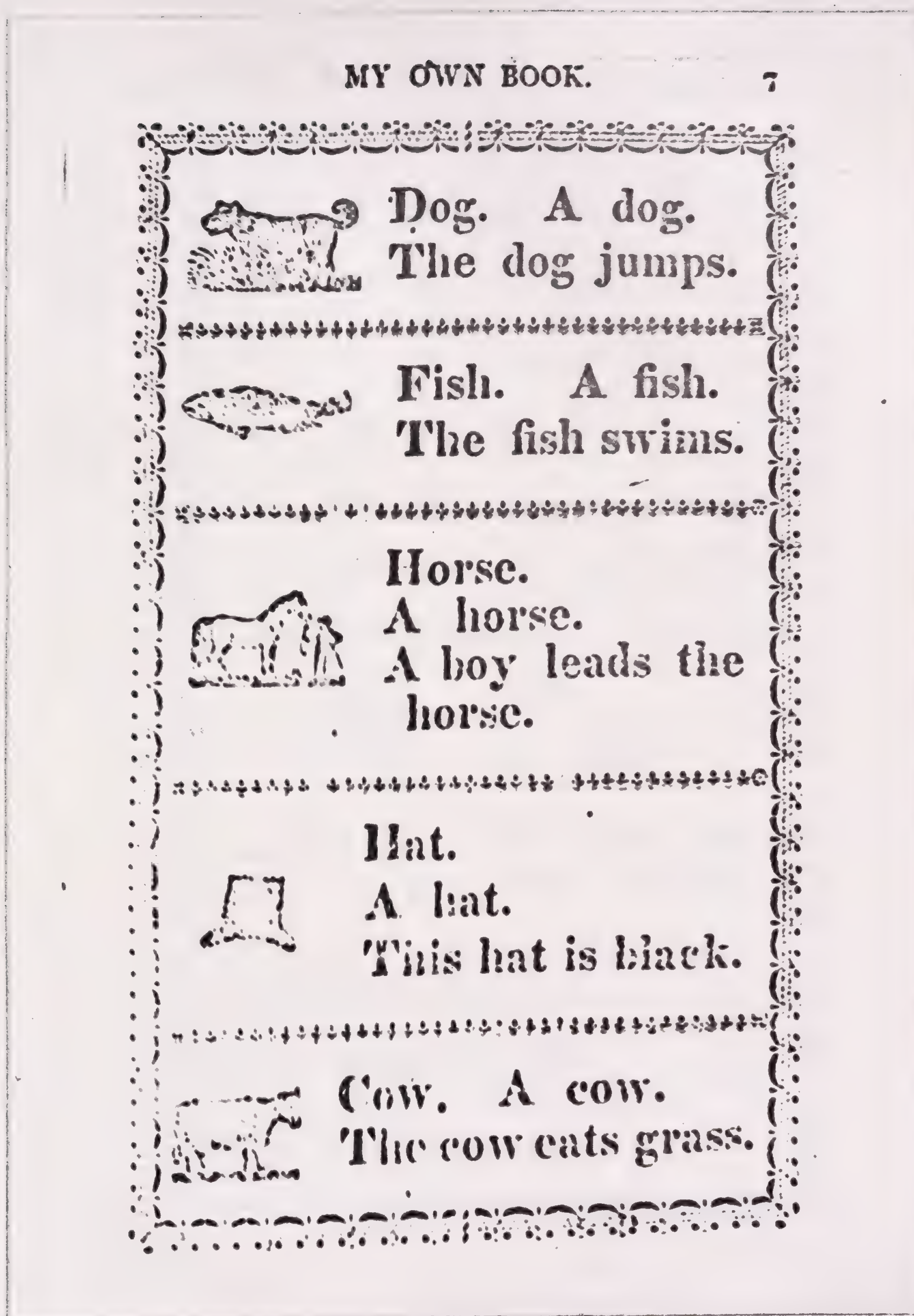


Fig. 30. My First Book of Reading and Spelling, introduction of words, phrases, and sentences.

6

WORDS OF TWO LETTERS.

am an as at be bo bu
do go he if in ka ke
is it lo me no ni nu
of on or ox si so su
ti to tu up us we ye
by bo wo fy my oh no



Ape.

An ape.

An ape has
two hands.



Cat.

A cat.

The cat has two
eyes.

Fig. 31. My First Book of Reading and Spelling, words of two letters and words, phrases, and sentences.

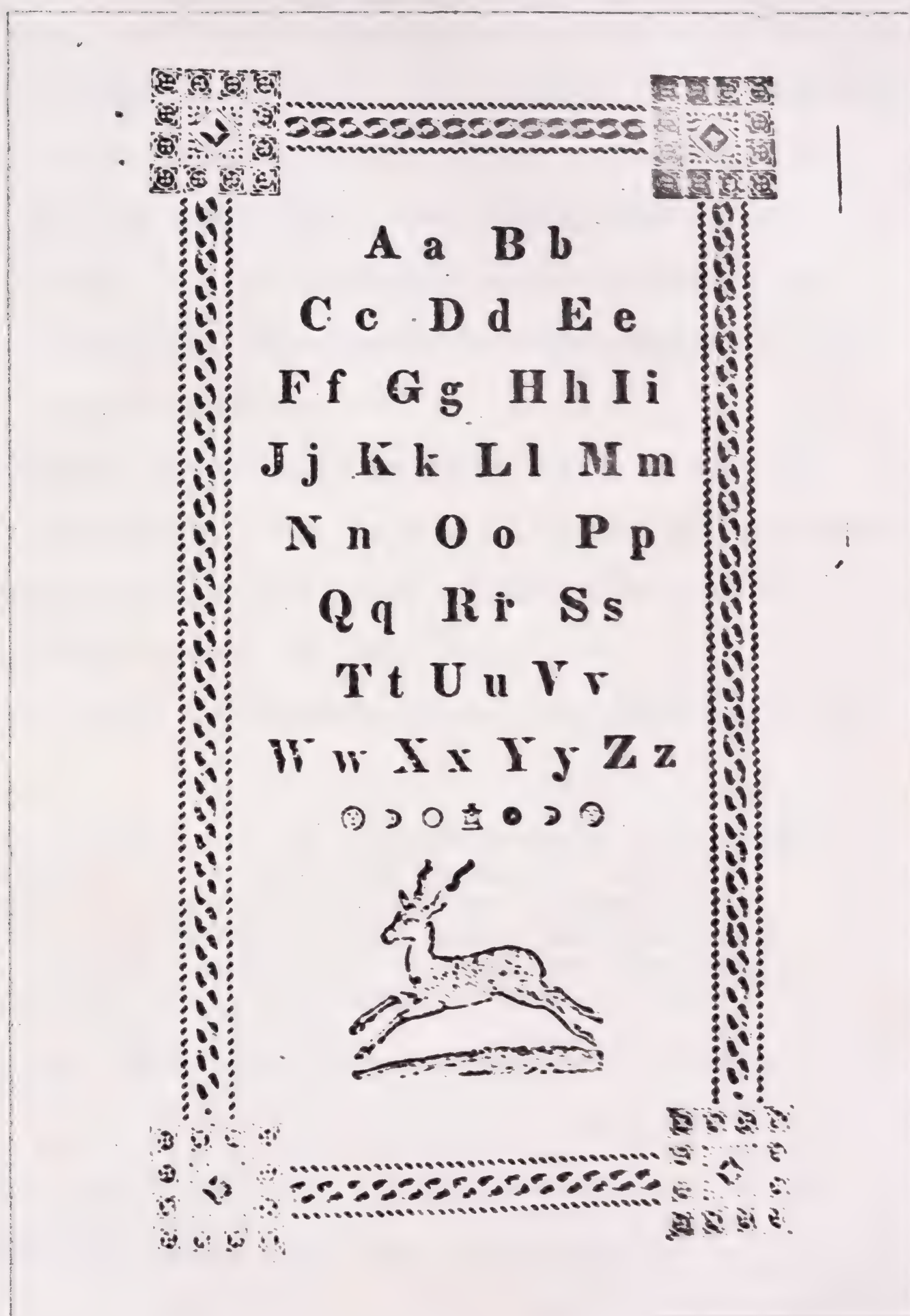


Fig. 32. My First Book of Reading and Spelling, illustrating the upper and lower case letters of the English alphabet arranged serially.

arranged in part by Ely, at the request of the Mission, and finished by Bishop. A copy of this vocabulary was received by Andrews in the summer of 1829. Every other page was left blank for the insertion of new words, and for any other corrections or additions that were necessary; in using this manuscript, the same method was used as in the case of the Loomis vocabulary.¹⁸

A meeting of the Mission in June, 1834, voted that Andrews was to prepare a vocabulary of the Hawaiian language which was subsequently published in Lahainaluna at the Press of the High School in 1836.¹⁹

The John Smith Emerson dictionary was designed to be of help to

Hawaiian youth of intelligence in acquiring a knowledge of the English language; and it is intended, in connection with the grammar, to furnish them adequate help, under the direction of the living teacher, until they can use the English Dictionary with English definitions.²⁰

The work, then, contained English words with definitions in Hawaiian.

Emerson also hoped that the English student of the Hawaiian language would find some help from his

¹⁸Ibid., Preface.

¹⁹Ibid.

²⁰John Smith Emerson, English-Hawaiian Dictionary (Maui: Press of the High School, 1845), Preface, p. i.

compilation while seeking to enlarge his vocabulary of Hawaiian words. With this purpose in mind, the author introduced two or more Hawaiian definitions for conveying the meanings of an English word, while, for the benefit of the Hawaiian only, one would have been sufficient.²¹

Emerson also complained that the dictionary had to be printed in spite of a lack of ". . . all points and marks for distinguishing the vowel sounds and the accents."²²

The more credit perhaps should be given to those who through the whole history of man could have rationalized their own inactivity with the argument that they did not have adequate tools for accomplishing the job to their liking. In spite of their feelings of inadequacies, these missionaries began printing the first alphabet for the Hawaiians and finally developed more sophisticated publications as time, energy, experience, and the presses became available to further the task.

The title, He Palapala Mua Na Na Kamalii, indicates that this book was a first reader for children, (see Figure 33).²³ For on pages two and three the alphabet is

²¹Ibid., Preface, pp. iii-x.

²²Ibid.

²³He Palapala Mua Na Na Kamalii (Oahu: Mission Press, 3rd edition, 10,000 to 25,000, 1830), 36 pp.

PALAPALA MUA
NA
NA KAMALII,

E NAAUO AI I KO LAKOU WA OPIOPIO.



E alakai i ke keiki ma ka aoao e pono ai ke hōle
ia, a hiki i kona wa e oo ai aole ia e haalele
aku. NA SOLOMONA.

816.9
Laurie,
1830

OAHU:
WA NA MISIONARI I PAI.
1830.

Mission Press; 3 Ed. 10,000, to 25,000.

Fig. 33. A First Reader for Children, printed on Oahu in the Hawaiian Islands, in 1830.

presented in upper case first, then in lower case (see Figures 34 and 35).²⁴ At the bottom of page three are the letters , <d>, <f>, <g>, <r>, <s>, <t>, <v>, <z>, to be used in the spelling of foreign words. On page four are presented Na Hua, the letters to be used in writing Hawaiian and foreign words (see Figure 36). The first two columns in Figure 36 are the upper and lower case letters, while the last three columns contain the letters of the alphabet in a different style of print together with names for the letters.

Pages five through nine presented all of the letters in practice syllables which are combined into simple words and then into sentences. Pages ten through thirty-six presented practice sentences about simple household objects and animals.

Writing

One of the most interesting imprints is the booklet on penmanship, written in Hawaiian in 1835 by Levi Chamberlain. The following illustration (Figure 37) is of the title page of this imprint. Figures 60, 61, 62, and 63 illustrating samples of handwriting for both the

²⁴Ibid.

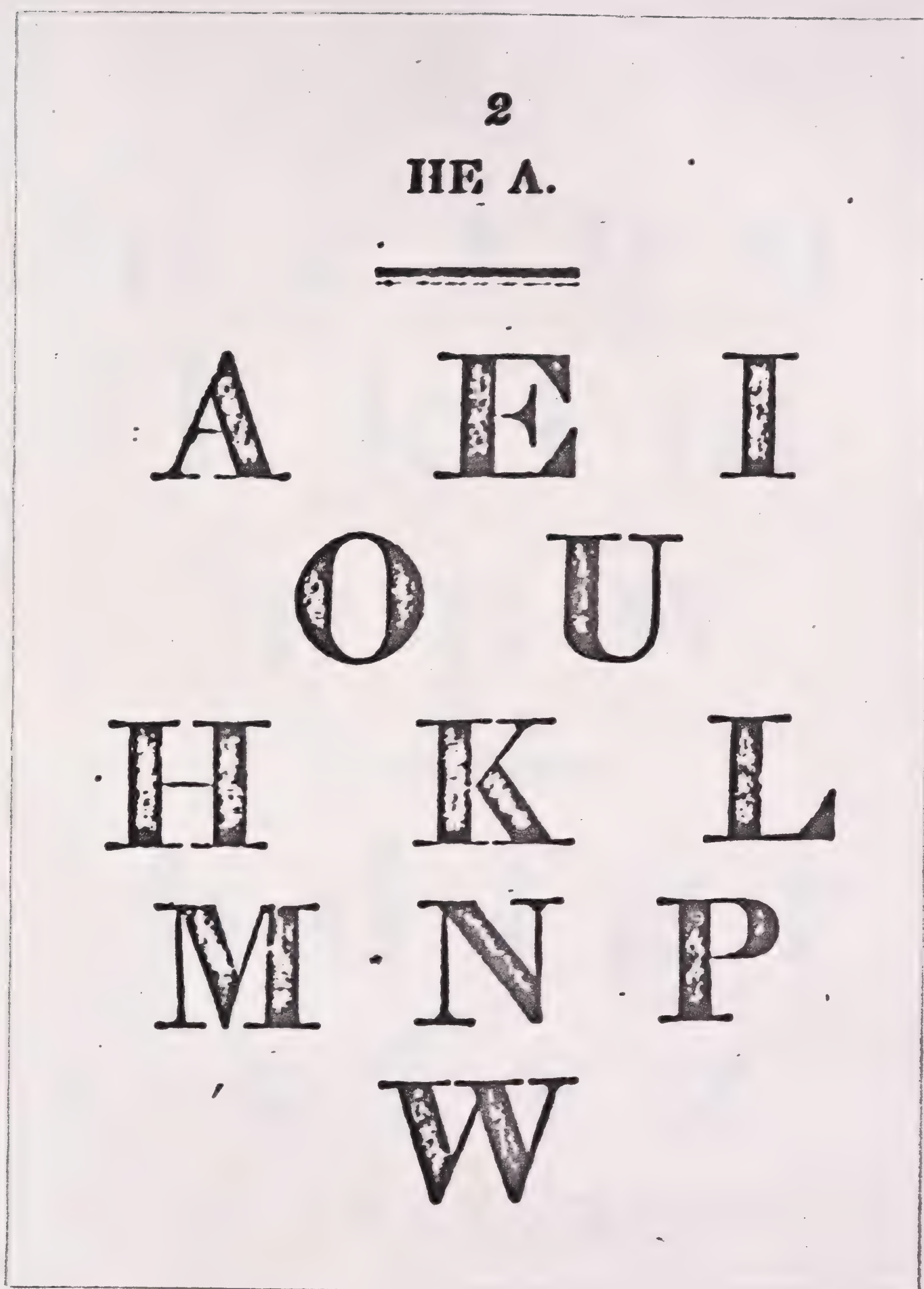


Fig. 34. A First Reader for Children, illustrating the alphabet for Hawaiian in upper case letters.

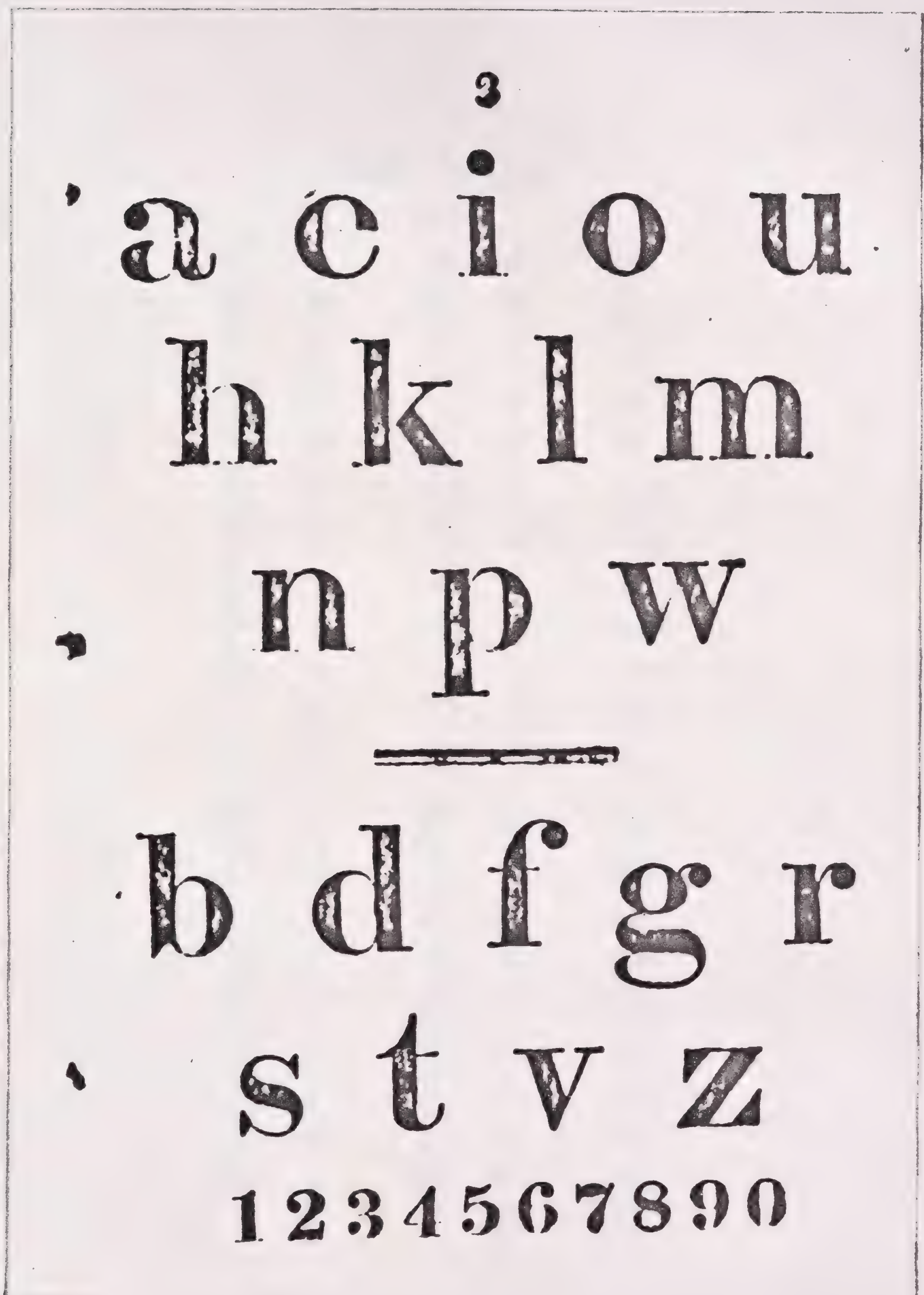


Fig. 35. A First Reader for Children, illustrating the alphabet for Hawaiian in lower case letters, with additional letters below the line for use in foreign words.

4			
NA HUA.			
A	a	<i>A</i>	<i>a</i>
E	e	<i>E</i>	<i>e</i>
I	i	<i>I</i>	<i>i</i>
O	o	<i>O</i>	<i>o</i>
U	u	<i>U</i>	<i>u</i>
H	h	<i>H</i>	<i>h</i>
K	k	<i>K</i>	<i>k</i>
L	l	<i>L</i>	<i>l</i>
M	m	<i>M</i>	<i>m</i>
N	n	<i>N</i>	<i>n</i>
P	p	<i>P</i>	<i>p</i>
W	w	<i>W</i>	<i>w</i>
B	b	<i>B</i>	<i>b</i>
D	d	<i>D</i>	<i>d</i>
F	f	<i>F</i>	<i>f</i>
G	g	<i>G</i>	<i>g</i>
R	r	<i>R</i>	<i>r</i>
S	s	<i>S</i>	<i>s</i>
T	t	<i>T</i>	<i>t</i>
V	v	<i>V</i>	<i>v</i>
Z	z	<i>Z</i>	<i>z</i>
	ʻā		<i>fi</i>
			<i>ze</i>
			<i>vi</i>
			<i>ti</i>
			<i>sa</i>
			<i>ro</i>
			<i>ga</i>
			<i>fe</i>
			<i>de</i>
			<i>be</i>

Fig. 36. A First Reader for Children, presenting four columns of upper and lower case letters to be used in writing Hawaiian and foreign words. The last column on the right hand side presents the names of the letters as they were taught to the Hawaiians.

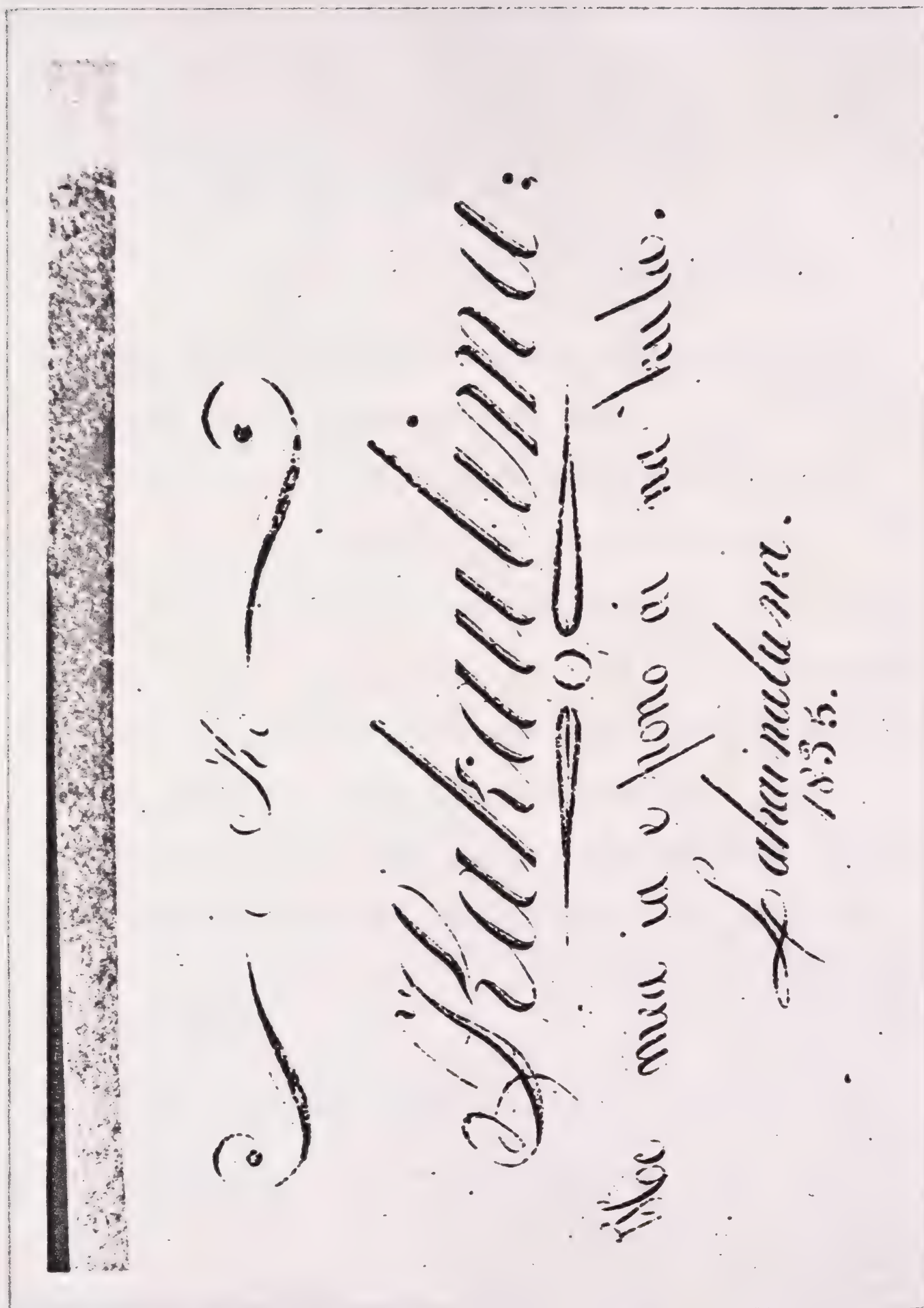


Fig. 37. Page one of a booklet of penmanship lessons written by Levi Chamberlain in 1835.

individual letters and for words, phrases, and sentences, may be found in Chapter V.²⁵

Advanced Textbooks

Geography

Two geography books, located at the Andover-Harvard Theological Library, were published on Oahu in 1832 and in 1845. The first contains statistical tables for square miles, distances, and population figures for various countries of the world including the various districts on the island of Oahu (see Figures 38, 39, 40).²⁶ The second geography textbook encountered was one published in 1845 on Oahu.²⁷ On pages six and seven are pictures and text describing the European man, the Asian, the Malayan, the African and the American Indian (see Figures 41, 42, 43).

Navigation and Surveying

The breadth of interest represented in the products of the missionary presses may be ascertained from a study

²⁵Chamberlain, Ke Kakaulima (Maui: Press of the High School, 1835), pp. 1-10.

²⁶Ke Hoikehonua, He Mea Ia E Hoakaka'i I Ke Ano O Ka Honua Nei A Me Na Mea (Oahu, 1832), pp. 1, 178-195.

²⁷He Hoikehonua, He Mea Ia E Hoakaka'ii I Ke Ano O Ka Honua Nei (Oahu: 1845), pp. 1-7.

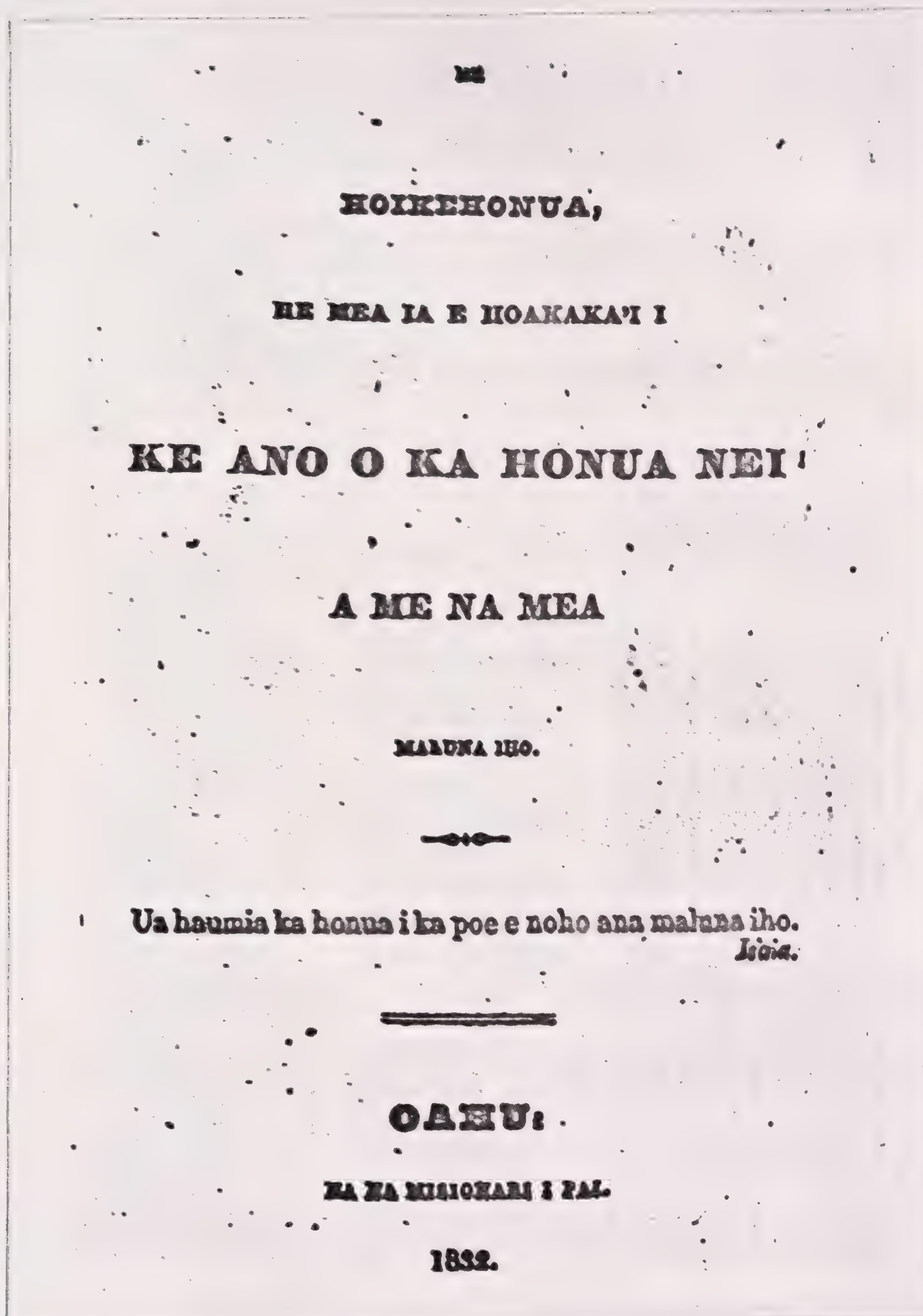


Fig. 38. Geography text title page

PAPA I.

Malalo iho nei ua hoonohonohoia na MOANAWAI nui a pau i ike pono ia ma ka honua nei. O ka moanawai nui loa ka i hoonoho mua ia, a ua kakauia ka inoa o ka aina, a me loa loa o ka moanawai, a me ka laula, a me na mile kua maloko.

Inoa o na moanawai.	Inoa o ka aina.	Ka loa mile.	Ka laula mile.	Na mile kua maloko.
Lokonui, -	Amerika akau,	360	100	35,000
Hurona, -	, ,	220	90	20,000
Mikigana, -	Amerika Huipuia	300	50	15,000
Lokokauwa,	Amerika akau,	270	50	15,000
Balekasa, -	Tataria, -	180	80	14,500
Marakaibo,	Amerika hema,	200	70	13,000
Winipeka,	Amerika akau,	250	50	12,500
Baikala, -	Siberia, -	390	25	12,000
Erie, -	Amerika akau,	230	45	10,350
Oniga, -	Rusia, -	130	70	9,100
Onctario, -	Amerika akau,	180	40	7,200
Ladoga, -	Rusia, -	140	75	6,200
Nikaragua,	Amerika akau,	120	41	4,600
Lokokuahiwi,	, ,	180	25	4,000
Lokoululau,	, ,	70	40	2,800
Wena, -	Suedena, -	80	30	2,000
Kamepalainq,	Amerika Huipuia	128	15	1,800
Wetera, -	Suedena, -	65	16	950
Geneva, -	Helevitia, -	50	10	500
Kaiuga, -	Nu Ioka, -	40	12	480
Konetania,	Geremania,	40	10	400

Fig. 39. Papa I, areas for various countries of the world.

PAPA II.

Ile papa keia e hoonohonoho i na MULIWAI nui o ka honua nei, a me ka hoakaka i ko lakou loihi, a me ko lakou laula, a me kahi e hiki ai ka moku ke holo aku.

NA MULIWAI O AMERIKA.

Inoa o na muliwai.	Ka loa. mile.	Ka lau- la mile.	Kahi e hiki ai ka moku ke holo aku
Misisipi, - -	4,500	2	4,000
Amazona, -	4,000	170	3,000
Laureneta, -	2,000	90	500
Riopelata, -	2,000	150	1,800
Makenesi, -	2,000	7	
Delenorete, -	2,000	10	80
Oronoko, -	2,000	25	740
Arekanesau, -	2,000		
Kolumebia, - -	1,500	3	183
Muliwaiula, -	1,500		
Nelesona, -	1,400		
Ohio, - -	1,300	1	945
Tenesi, - -	1,100		500
Pohakulena, -	1,100		
Koloraodo, - -	1,000		
Kalaka, - -	900		
Leuisa, - -	900		
Potomaka, -	700	7	300
Iakobo, - -	600		
Savana, - -	450		
Hudesona, -	400	2	166
Deleware, -	400	20	75
Konetikuta, -	400	1	50

Fig. 40. Papa II, presenting the length in miles of various rivers of the world.

HE

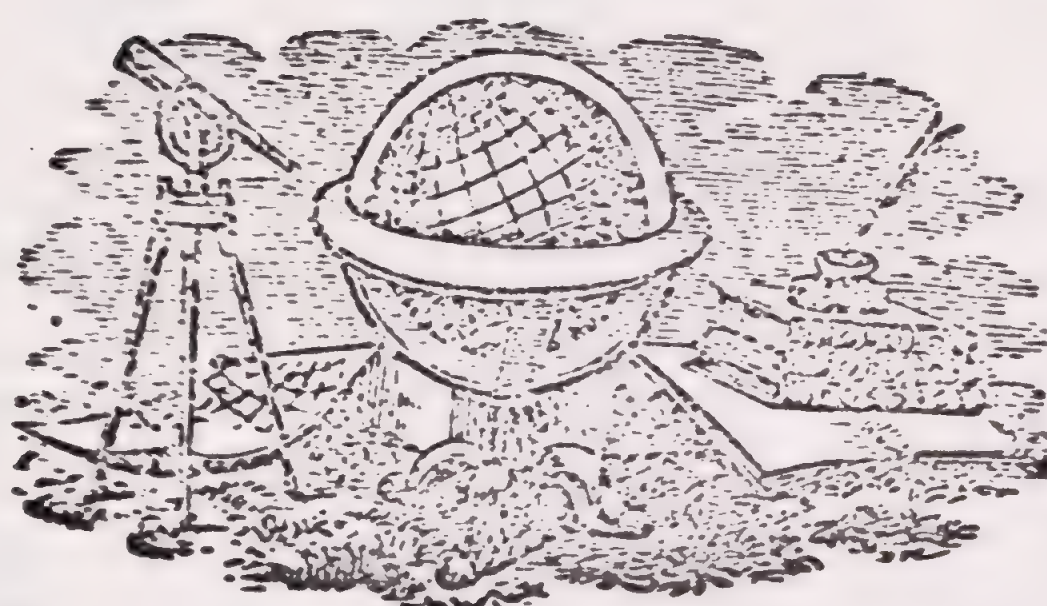
HOIKEHONUA,

HE MEA IA E HOAKAKA'I

HE ANO O KA HONUA HEI,

A HE NA MEA

MALUNA IHO.



VA UNUHIA NOLOKOMA'IGA HOIKEHONUA A W. C. WOODBRIDGE.

Ua hanaia ka honua i ka poe e noho ana maluna iho.—Isaia.

Oahu:

HEA PAI PALAPALA A NA MINTONARI.
1845.

Fig. 41. Title page for a geography text published in 1845.

PAPA KUHIKUHI.

	Aoao.		Aoao.
Aiana,	187	Oahu,	43
Aia oiaomao,	70	Ohio,	91
Ainahu,	131		
Ainamoaana,	42	Hawaii,	45
Aiaa moku o Aferika,	192	Helene,	146
Aigupita,	182	Helevitia,	140
Ao,	33	Hinedu,	166
Auseturia,	139	Holunc,	136
Alabama,	89		
Amerika,	66	Knahela ma ka palapala	
" Akau,	66	honua,	112
" Hema,	102	Kaci Anu,	28
" Huipua,	73	" Olu,	29
Ano o ka honua,	7	" Wela,	26
Anu,	30	Kai [na]	11
Anetila nui,	100	Kai pihu a me maloo,	33
Abesunia,	187	Kau [na]	21
Adela,	187	Kahoolawe,	51
Aferika,	176	Kanaka [na]	37
Arabia,	165	Karolina Akau,	33
Asia,	152	" Hema,	33
		Kelebe,	64
Europa,	123	Kelona,	167
Enclani,	133	Kenetuke,	92
Etiopia,	189	Kina,	169
		Kirasia,	153
Iapana,	163	Ko kanaka noho ana,	33
Iudaio [na]	40	Ka Kina Tutaria,	159
Inia Komohana,	99	Kolomebia,	107
Ilinoi,	92	Konrtikuta,	80
Inedina,	92	Ko Beritania Amerika,	71
Inikini,	97	Ko " Aiaa Noweke,	71
Irelani,	135	Ko " Panalau,	72
Italia,	144	Ko Densuka Amerika,	70

Fig. 42. Table of contents (Papa kuhikuhi) for a geography text.

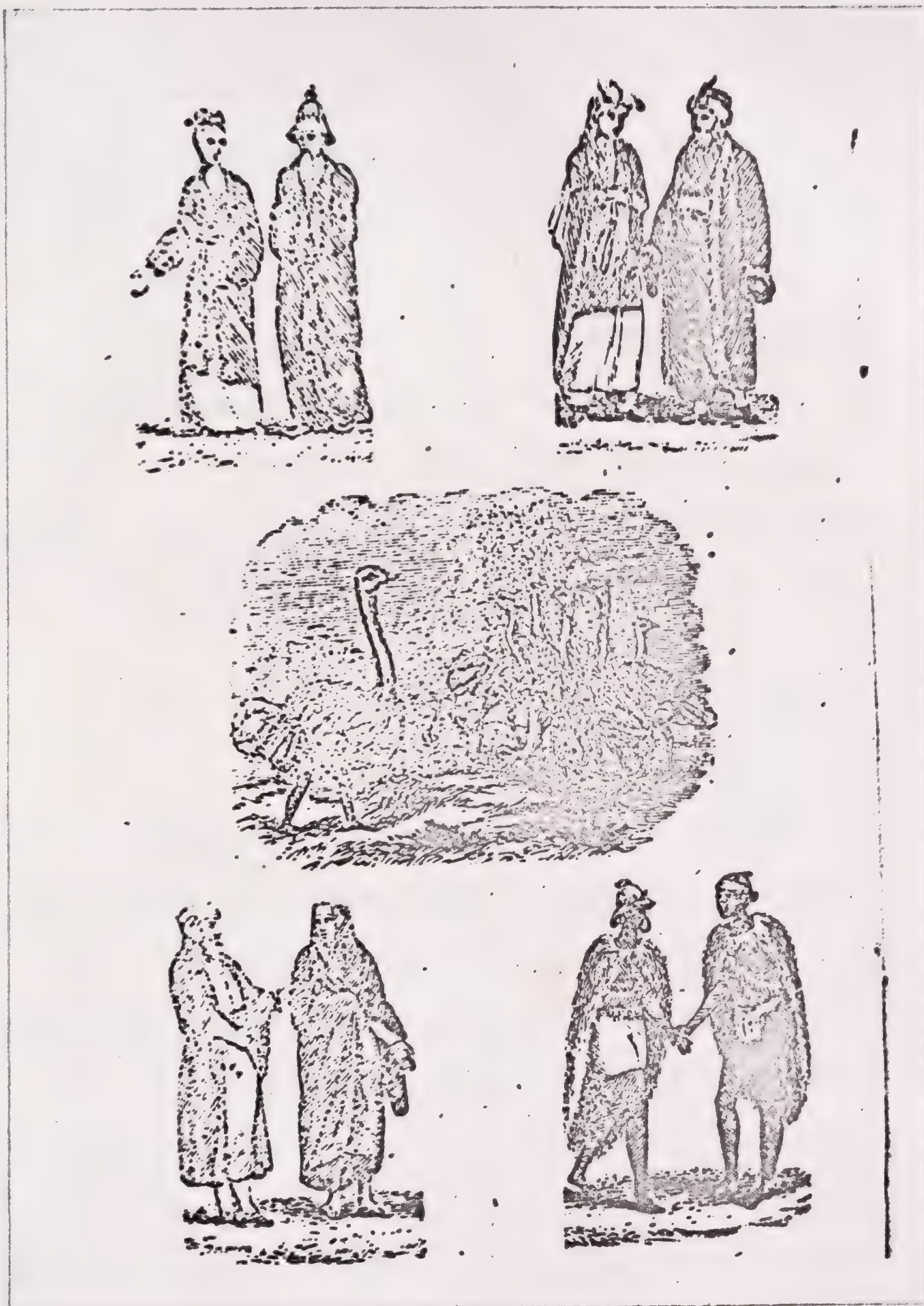


Fig. 43. Illustrations of the dress and physical appearance of people of various races and countries.

of the various titles of the textbooks in the imprint collections still in existence.²⁸

The textbook, Ke Anahonua, was found in the Andover-Harvard Theological Library, Hawaiian imprint collection. The title as it appears on the title page of the 1834 publication presented a problem of translation. Anahonua, written as one word means geometry in modern Hawaiian, while ana honua refers to surveying. The words "Ke ana aina a me ka holo moku" found under the main title indicate that the subject matter covered in the text is surveying and navigation.

Latin

As can be seen the subject matter of the imprints covered a wide range of topics, from navigation and surveying to Latin. John Parkhurst's Latin text is the earliest published example of a programmed text found by this writer.²⁹ Unlike the other imprints discussed here, this one is in English.

²⁸Ke Anahonua (Maui: Press of the High School, 1834), pp. 1-5.

²⁹John Parkhurst, Latin Lessons for Children (Maui: Lahainaluna High School Press, 1839), pp. 1-9. [In a conversation with Dr. Bruce Ryan of the University of Oregon it was decided that the Parkhurst text was organized in a programmed learning manner.]

Music Books

An interesting book published on Oahu in 1834 was entitled O Ke Kumu Leomele, No Na Himeni A Me Halelu E Hoolea Aku Ai I Ke Aku. Here is an elementary introduction to notation and the reading of music.³⁰ On the first page of this text is an elementary explanation of notation. Po'o means a whole note in music, po'olima a half note, po'o'ele a quarter note, po'omana an eighth note, po'omanalua a sixteenth note, and po'omanakolu a thirty-second note. As late as 1834 these terms were being written without a symbol for the glottal stop. The spelling used in this explanation of the test is from Pukui and Elbert.³¹

Religious Books

Religious Lessons

Palapala Hemolele refers to the Holy Scriptures, the sacred word, or religious teachings of various kinds. Ka Haiao I contains scriptural lessons with questions to be answered by the student.³² Haiao (sic) refers to an

³⁰O Ke Kumu Leomele, No Na Himeni A Me Na Halelu E Hoolea Aku Ai I Ke Aku (Oahu: 1834), pp. 1-56.

³¹Pukui and Elbert, op. cit., pp. 314-15.

³²Ka Huliano He Olelo Hiele No Ia E Moakaka Ai Ke Ano O Ka Ano O Ka Palapala Hemolele (Maui: Lahainaluna, 1835), pp. 1-4.

O KE

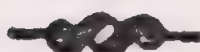
KUMU LEOMELE,

NO NA

HIMENI A ME NA HALELU

E HOOLEA AKU AI

I KE AKUA.



OAHU:

NA NA MISIONARI.

.....

1834.


Fig. 44. O Ke Kumu Leomele, an elementary song book

MOKUNA I.

NO NA HUA MELE.

Ke ano, ka leihi, ka pokole, a me ka hui ana, o na hua mele.

1. I ke mele ana, ua pokole kekahi leo, a he leo kauo kekahi leo. Ina e kakauia ka leomele ma ka pepa, o ka hua mele ka mea e maopopo ai ka leo pokole, a me ka leo kauo. Ma ke ano o ka hua e nana'i. Eono no hua i kakauia. Eia na hua, a me ko lakou inoa:—

<p>O Poo</p> <p>P Poolima . . .</p> <p>P Poele</p> <p>P Poomana . .</p>		<p>Poomanalua</p> <p>Poomanakolu</p>
---	---	--------------------------------------

Eono wale no ia mau hua mele. Ina iluna ke au, a ilalo paha, he like wale no ia.

O Pooalua kekahi inoa o ke poolima, no ka mea, elua no poolima maloko o ke poo.

O Pooaha kekahi inoa o ke pooele, no ka mea, eha no pooele maloko o ke poo.

O Pooawalu kekahi inoa o ke poomana, no ka mea, ewalu no poomana maloko o ke poo.

Fig. 45. Mokuna I, indicating that this is the beginning of the first chapter of a book identifying the notes of the musical scale.

NO KA LEOMELE.



O KA leo o ke mele aole ia i like loa me ka leo o ke kamailio maoli. I ke kamailio maoli ana pahce iluna ka leo ma kekahi hua, a pahce hoi ilalo ma kekahi. Aole i hoomaopopo lea ia ke kiekie a me ka haahaa, a me ka loihi o na hua olelo. O ka leo o ke mele, aole ia i pahce iluna a ilalo. Aka ua hoonuunuu maopopo ia na hua mele, ua maopopo ke kiekie a me ka haahaa, a me ka loihi o ka leo o keia hua a me kela hua a ua kamau maopopo ka leo ma ia hua aku, ia hua aku, a ua akaka lea hoi ka lele ana o ka leo mai kekahi hua, a i kekahi hua. E hui pono no hoi kekahi mau leo mele, o ke kiekie a me ka haahaa.

Ina' kakau kakou i ka manao, o ka hua palapala ka mea e hiki ai. A ina kakau kakou i ka leo mele, o ka hua mele

Fig. 46. An introduction to the basic concepts of notation.

instructive discourse;³³ the current spelling of Haiao includes the symbols used to denote glottal stops, although in this 1835 printing no glottal stops were included (see Figure 47).

Ke Kumu Kamalii presents a series of basic or elementary religious lessons for children.³⁴

In Hele Malihini Ana we find John Bunyan's Pilgrim's Progress in Hawaiian (see Figure 50).³⁵

A book concerning moral philosophy Wehewehehala was published in Honolulu in 1847 (see Figure 51).³⁶

The Ten Commandments printed on cloth was found hanging in one of the mission buildings in Honolulu, Hawaii. There is no date on the cloth or on any part of the frame. It is included because of the beauty of the workmanship and because it represents an example of the orthography after the revision of the alphabet in 1826 (see Figure 54).³⁷

A catechism called He Ui No Ke Akua was published in

³³Ka Haiao I (Maui: Lahainaluna, 1835).

³⁴Ke Kumu Kamalii (Honolulu: 1837), pp. 1-11.

³⁵Ka Hele Malihini Ana (Honolulu: Mea Pai Palapala na Missionari, 1842), p. 1.

³⁶Wehewehehala (Honolulu, Oahu: 1847), p. 1.

³⁷O Ko Ke Akua Mau Kanawai A Mose I Hoiike Ai, The Ten Commandments on cloth (n.p., n.d.).

*National Preacher
for the Sandwich Islands*
HAIAO *Vol. 1*

OIA

KEKAHI OLELO A NA TOE MISIONARI

I HAI AKU AI

I KA LA SABATI

UA PAHA I MEA E PONO AI
NA KANOKA.

KA HAIAO I.

LAHAINALUNA MAUI
1835.

8169

Fig. 47. Ka Haiao I, containing scriptural lessons

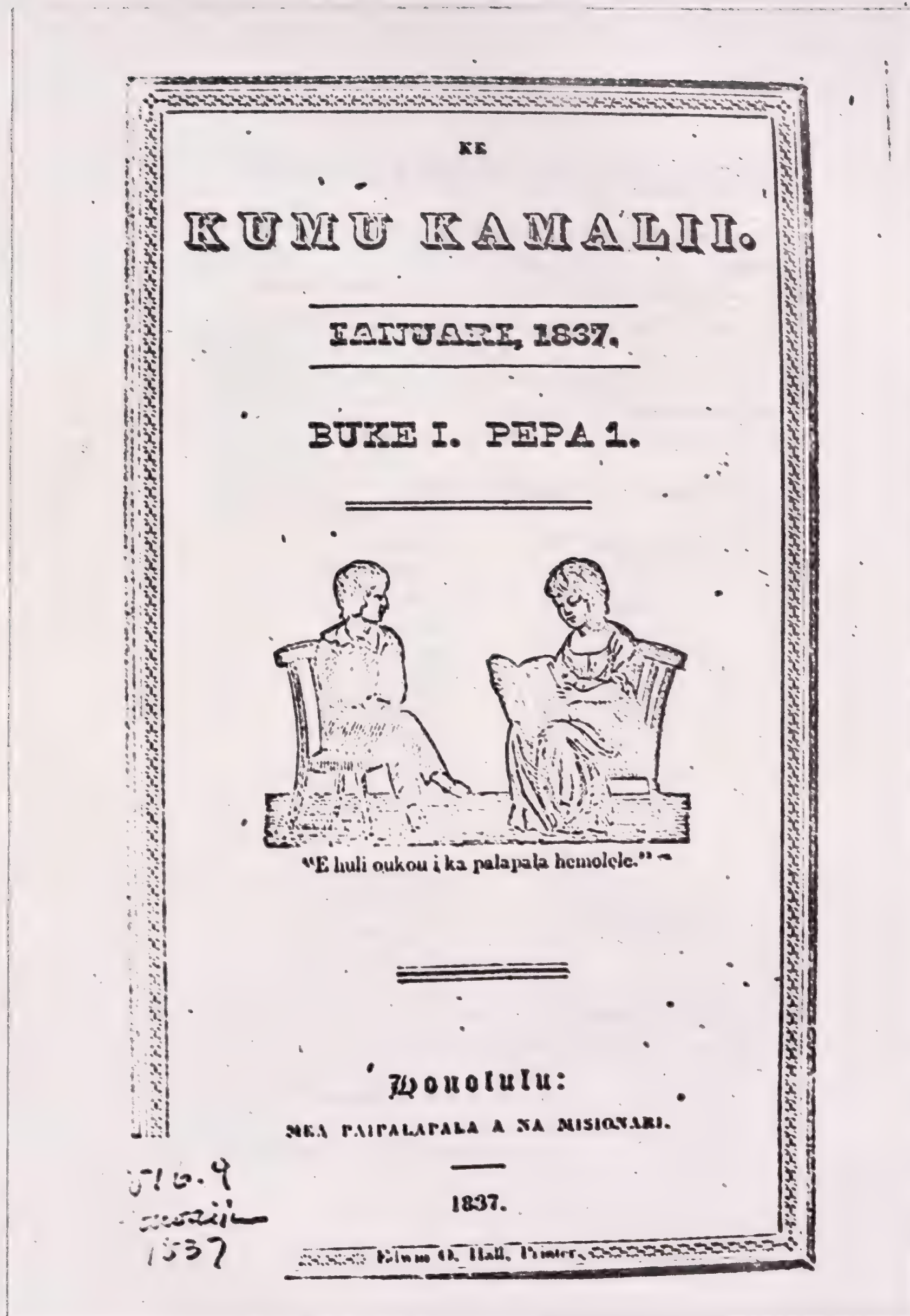


Fig. 48. Ke Kumukamalii, religious lessons for children

KE KUMU KAMALII.

EUKE I.

IANUARI, 1837.

PEPA I.

E na keiki; Eia ka mua o ka palapala hou, O KE KUMU KAMALII ka inoa.

Eia ka makahiki hou, ka makahiki o ka Haku hoo-kahi tausani, ewalu haneri, me kanakolukumamahiku.

Eia no hoi ka MALAMA MUA o ka makahiki, o IANUARI kona inoa.

O na la a pau iloko o Ianuari he kanakolukuma-makahi; Pencia:

1 Sabati,	17 Tusede,
2 Monede,	18 Wenede,
3 Tusede,	19 Tarede,
4 Wenede,	20 Feraide,
5 Tar. de,	21 Satude,
6 Feraide,	22 Sabati,
7 Satude,	23 Monede,
8 Sabati,	24 Tusede,
9 Monede,	25 Wenede,
10 Tusede,	26 Tarede,
11 Wenede,	27 Feraide,
12 Tarede,	28 Satude,
13 Feraide,	29 Sabati,
14 Satude,	30 Monede,
15 Sabati,	31 Tusede.
16 Monede,	

Ehia la Sabati iloko o Ianuari 1837? Ehia la Monede? Ehia la Tusede? Wenede? Tarede? Feraide? Satude? Ehia na la a pau iloko o Ianuari 1837? Ehia hora? Ehia minute? Ehia sekona?

E na haumana, Owai o onkou e hiki ke loa? E noono, a e hoike mai, i ike kakou a pau. Mai hoomaunana i ka manawa.

Fig. 49. Ke Kumu Kamalii, the first lesson including the names of the days of the week as they were written for the Hawaiian pupils.

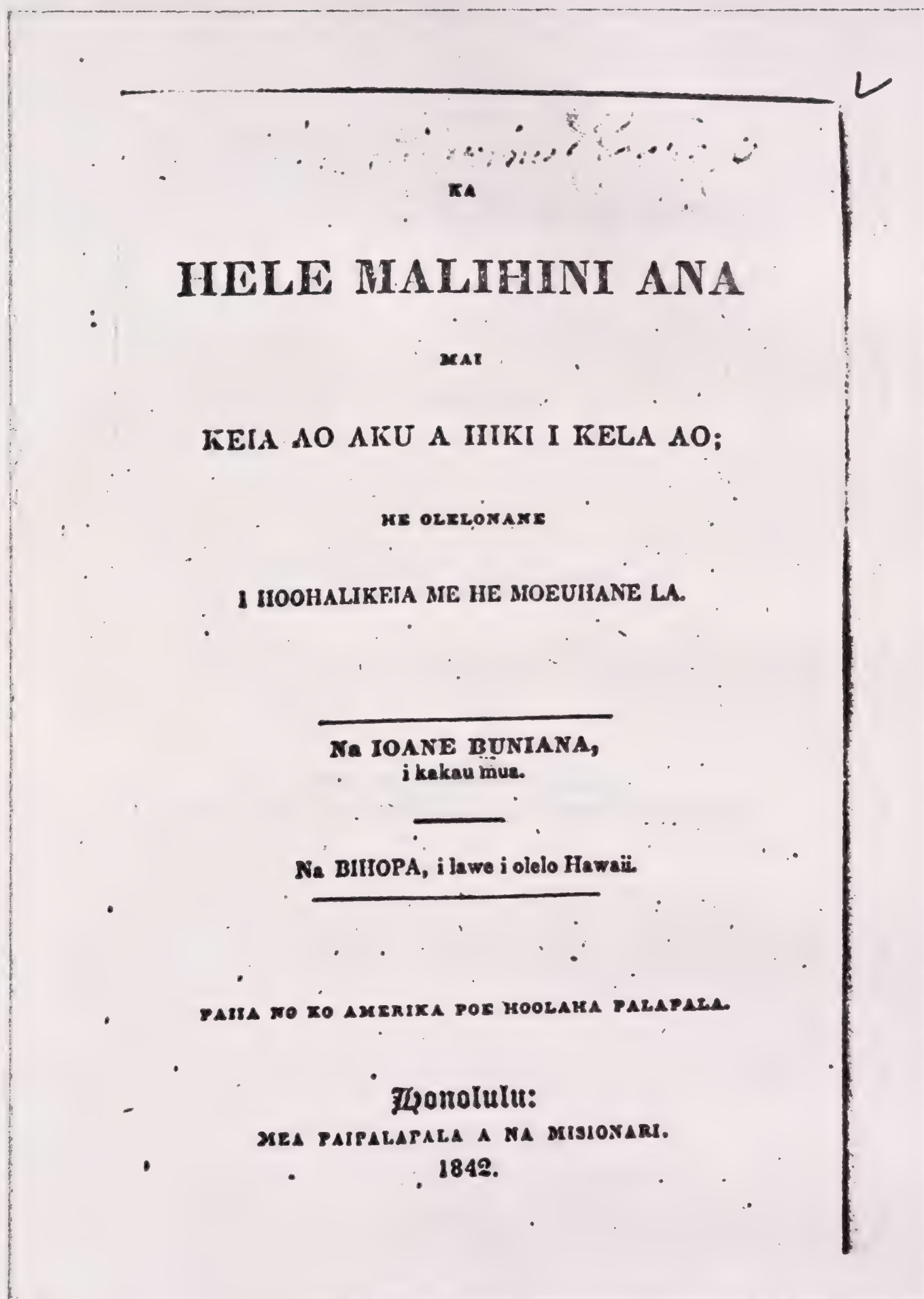


Fig. 50. Title page of John Bunyan's Pilgrims' Progress, translated into Hawaiian.

Moral Philosophy
WEHEWEHEHALA,

OIA KOI KA

HULIKANAKA.

NA LIMAIIKAIIKA I KAKAU,
NA LAUA ME DIBELA E HOOPONOPONO HOU.

Honolulu, Oahu:

MEA PAI PALAPALA A NA MISSIONARI.

1847.

Fig. 51. Title page of a book on moral philosophy

1965 in Honolulu (see Figure 52).³⁸ The second page contains the questions and answers of the catechism (see Figure 53).

Hymnals

Some of the earliest work in printing involved the translating of hymns into Hawaiian; an example of this phase of the work, published in 1823, found in Houghton Library at Harvard University, had a written notation indicating that the copy was a gift to William Jenks from Levi Chamberlain and was dated, September 1, 1825.³⁹ Each hymn had been translated from English into Hawaiian and introduced with a Biblical quotation. The orthographic style was that used prior to the revision of the alphabet in 1826, e.g., aroha is used in place of aloha and maitai for maika'i.

In the following example of 1830, the evidence of the alphabet revision is noticeable at once: aloha for aroha, alii for arii, and maika'i for maitai.⁴⁰

In the Andover-Harvard collection is another hymn

³⁸He Ui No Ke Akua (Honolulu: Paia E, H. M. Wini, 1865), p. 1.

³⁹Na Himeni Hawaii He Me Akua Mau (Oahu: Paha I Ka Mea Pai Palapala A Ka Peo Misionari, 1823), pp. 1-9. [Houghton Library, Harvard University].

⁴⁰He Mau Himeni Hawaii He Mea Hoolea'i I Ke Akua Mau Ia Iehova (Oahu: Ka Na Misionari I Pai, 1830), pp. 1-5. [Andover-Harvard Theological Library, Hawaiian Imprint Collection.]

HE

UI NO KE AKUA,

A ME

NA KANAKA:

UA KUPONO I NA KANAKA MAKUA A ME NA KAHILIL.

Hoopukaia e ka Papa Hawaii.

HONOLULU:

PAIIA E H. M. WINI.

1865.

Fig. 52. He Ui No Ke Akua, literally, questions about God.

HE UI

NO KE AKUA, A ME NA KANAKA.

MOKUNA 1.—NO KE AKUA.

1. Owai ke Akua maoli?
O Iehova wale no ke Akua maoli. Kan.
4: 35. Isa. 44: 6.
2. Heaha ke Akua? He Uhane maikai ke Akua.
Ion. 4: 24.
3. Ua ike makaia anei ke Akua?
Aole ike makaia. Puk. 33: 20. Ion. 1: 18.
4. He kumu a he hope anei ko ke Akua?
Aole ona kumu, aole ona hope. Puk. 3: 14.
Hoik. 22: 13.
5. Aole ona wahi hemahema?
Aole ona hemahema iki: ua hemolele loa
kona ike, kona akamai, kona mana, kona pono,
a me kona aloha. Kan. 32: 4.
6. Ihea ko ke Akua wahi i noho ai?
Aia i ka lani a me na wahi a pau ma ka ho-
nua nei; ua piha ka lani a me ka honua ia ia.
Ierem. 23: 24.
7. Ehia Akua? Hookahi wale no Akua oiaio. 2. Sam.
7: 22. Ion. 17: 3.
8. Ehia mea ano like iloko o ke Akua?
Ekolu mea ano like, ka Makua, ke Keiki a
me ka Uhane Hemolele. Mat. 28: 19.
9. Ekolu anei Akua? Aole, hookahi wale no. Ion.
10: 30. 1 Ion. 5: 7.

Fig. 53. The first page of questions and answers, together with the citations from the Scriptures.

book printed in 1864 in Honolulu, Oahu.⁴¹ This printing presented the orthographic system after the revision, and there was some use of the <'> the symbol used for the glottal stop (see Figures 55 and 56).

As schools were organized, the demands for instructional materials increased, so that the history of printing in Hawaii is a commentary on the intellectual scope and depth of the cultural diffusion resulting from the introduction of the first alphabetic system. In the early days of these developments, there had been no separation of religious and secular education and this continued until foreigners of faiths other than Protestant began to exert the necessary pressures which led to the separation of the educational functions into secular and religious. As one travels about the Islands today there are frequent reminders of these educational functions, for many a rural public school is situated next to an old wooden or stone church with its cemetery.

⁴¹Na Himeni Hoolea He Mau Mele Ma Ka Uhane (Honolulu: Ka Na Misionari Mea Pai, 1864), pp. 1-4.

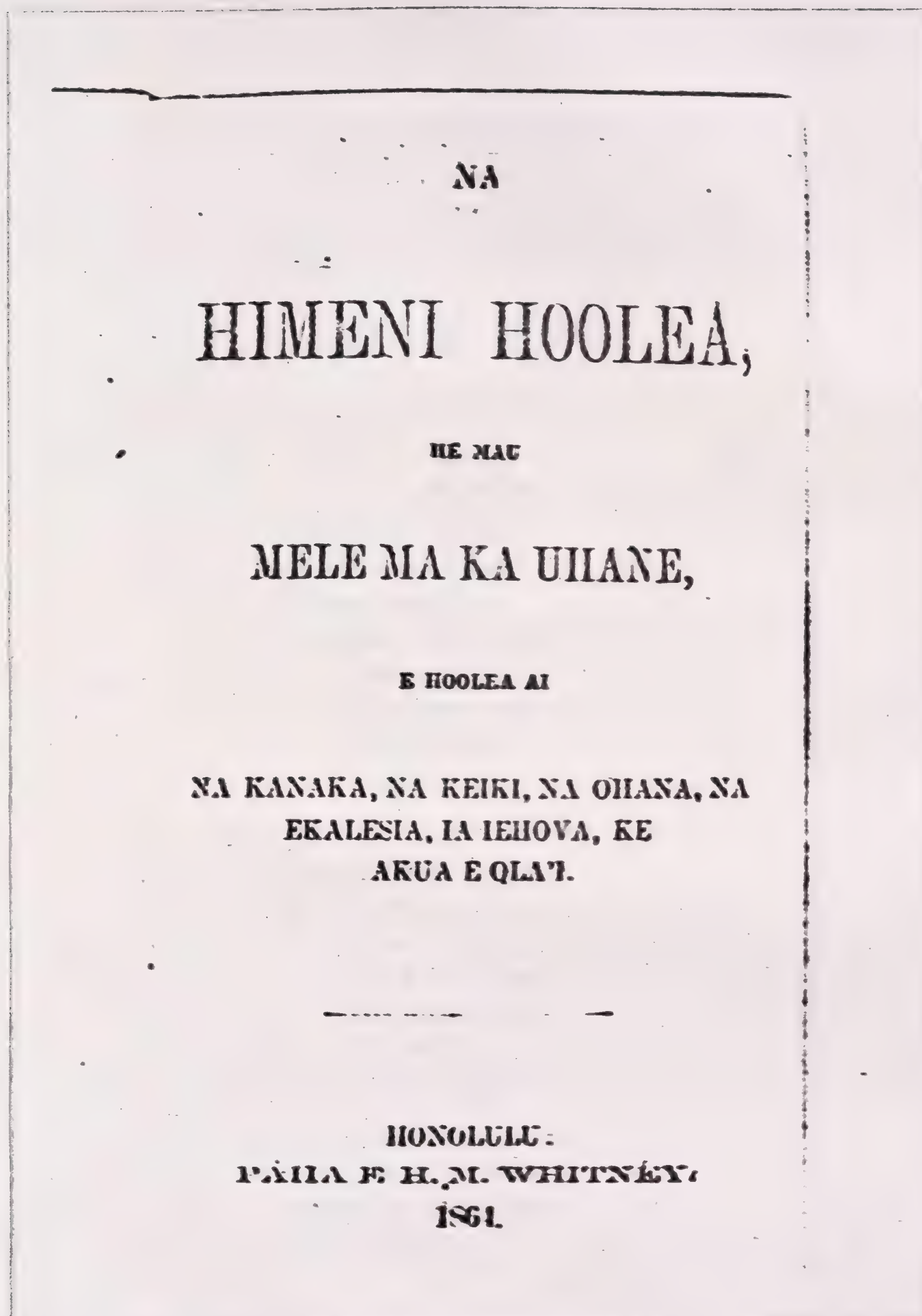


Fig. 55. The front page of a hymn book written in Hawaiian.

HIMENI.

1.

6—8.

(4.)

Ke Akua mau.

na hi-

i o ka

1 I MAI la ka Moi,
 Ka Haku o ke ao,
 Maluna o na'lii,
 Na haku hoi a pau :
 Owau no nei,
 Ke Akua mau,
 Ke ola wau,
 E pono ai.

2 Hoolohe pono mai,
 Oukou na'lii a pau,
 Ia kanawai maikai.
 E malama oukou ;
 Na'u no i kau,
 Ke kanawai,
 I lohe ai,
 Oukou a pau.

3 Mai kuhi mai oukou,
 He Akua ole nei ;
 Owau ke Akua mau,
 Aohc akua e ;

Fig. 56. A hymn in Hawaiian illustrating the use of <'> to represent the glottal stop.

CHAPTER V

NA HALE KULA: THE FIRST SCHOOLS

The first formal schools introduced to the Hawaiians by the missionaries were singing schools. On Thursday, June 8, 1820, a singing school was opened to be continued weekly for the "improvement" of the missionaries and others who shared their interest. Along with some of the Hawaiians who had not yet been introduced to the "delightful art" of community singing, several of the "white" residents were desirous of joining the school.¹

These Sabbath schools were not really schools when compared with the connotations of the word as used in common parlance today; they were gatherings of the native Hawaiians in someone's home with Thomas Hopu and John Kanui interpreting the sermon and the Scriptures into spoken Hawaiian for the natives.² It was the sincere belief of these New England missionaries that Sabbath schools, conferences in the homes of the people, and the formal church services would accomplish their purposes. These goals were

¹Journal of the Mission On Board the Brig Thaddeus [handwritten copy of the original manuscript] (MS in Houghton Library, Harvard University), p. 70.

²Ibid., p. 92.

to introduce the Hawaiians to Christianity and to teach them the skills of reading and writing their own language. That the Hawaiian boys who arrived on the brig Thaddeus played a significant role in this educational process is sometimes not emphasized by historians.³

By August 1, 1820, a slate was introduced into the classroom, possibly the first writing slate that these Hawaiian pupils had ever seen. Being fascinated by the process of writing the letters of the newly introduced alphabet on the slate, the pupils thus began the process of learning to write, read and spell the Hawaiian language.⁴ Writing their lessons helped the students in acquiring these skills.

While an admiring group of her fellow-students watched an adult pupil named Sally printed the sentence on the schoolroom slate "I cannot see God but God can see me." She then read the sentence in English and translated it into Hawaiian.⁵ This single occurrence set down in the Journal on April 1, 1820, represented a turning point in these early efforts to introduce formal teaching

³The names of Thomas Hopu and John Kanui appear a number of times in the Journals of the 1820's.

⁴Journal of the Mission on Board the Brig Thaddeus, op. cit., p. 91.

⁵Ibid.

methodology, a turning point, in the sense that all of the native pupils witnessed one of their own people achieving what they all desired. Those who were present were "filled with wonder and admiration."⁶

Another glimpse of the type of teaching employed in the Sabbath schools may be gained from the entries of August 6, 1820.⁷ Many aspects of the teaching methods and subject matter introduced will be included in this discussion, since there were no lines of demarcation separating religious and secular training into discrete functions. As the Sabbath school assembled in the afternoon after the morning church service, some of the simple doctrines of the Gospel were translated and discussed. A few pages from Henry Opukahaia's Journal were read by Thomas Hopu and finally the pupils were taught to repeat after Thomas the words, "I cannot see God, but God can see me," in Hawaiian.⁸ It was in this manner that educational processes were first introduced into the Hawaiian Kingdom.

⁶Ibid.

⁷Ibid., p. 92.

⁸Ibid.

Schooling

Kekaulima

One of the many elements of instruction in these island schools consisted of teaching the names for the letters in the newly introduced alphabet. When this was accomplished, they attempted the art of penmanship. Since paper was precious, pupils practiced writing on a slate like the ones used in New England school rooms. The penmanship books presented models for writing both upper and lower case letters. Each stroke necessary for writing the separate symbols was numbered so that the pupil might copy the exact pattern from the instruction manual. The art of penmanship was called kekaulima by the Hawaiians and began with the introduction of the basic strokes which were combined to form the more complex designs involved in each letter (see Figures 57, 58, 59, and 60). The various basic strokes are illustrated on the top line of Figure 57 and numbered from one to eleven. The bottom line indicates which basic strokes are used in writing the vowels and the Hawaiian word nane.

Following this rigorous work the pupil was expected to write words from his native Hawaiian language in the newly learned script. The chiefs, chiefesses, and royalty who first took pen in hand most likely copied a page such as the

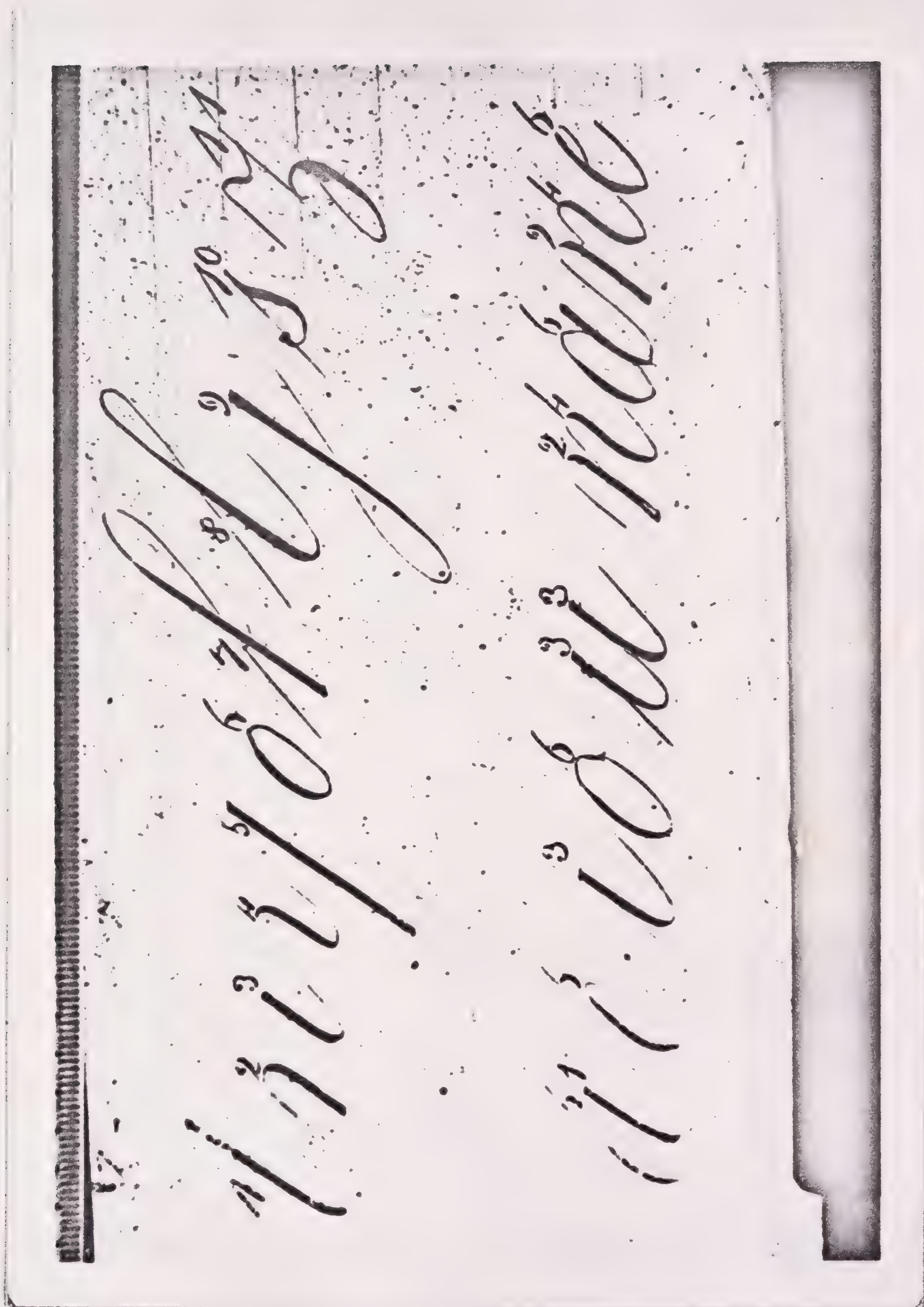


Fig. 57. Page five of a booklet containing the various strokes to be used in writing the letters of the alphabet.



Fig. 58. Page containing capital letters from a penmanship book written by Levi Chamberlain in 1835.

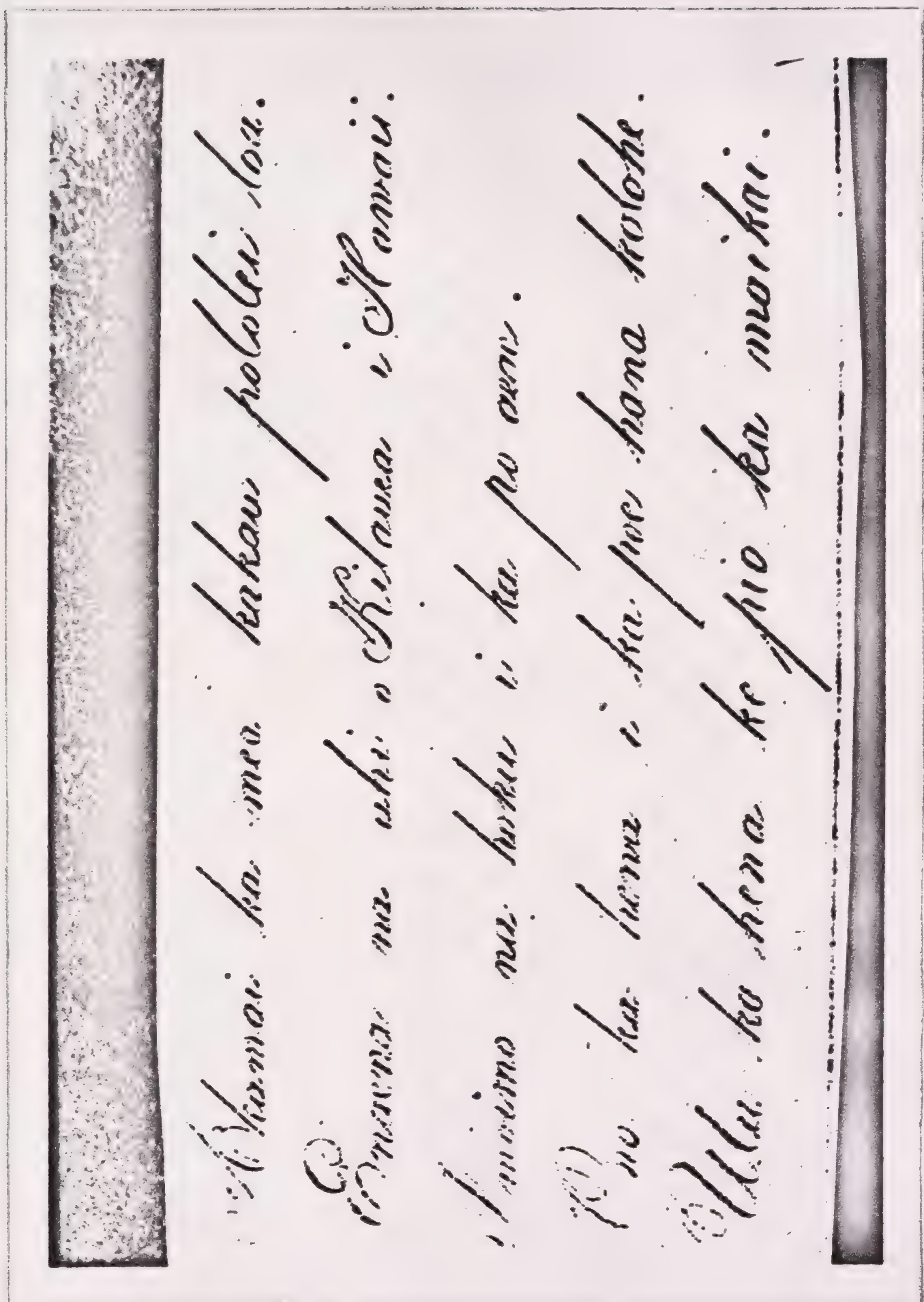


Fig. 59. Whole sentences from a booklet of penmanship lessons, written by Levi Chamberlain in 1835.



Fig. 60, Page 9 of a booklet of penmanship lessons written by Levi Chamberlain in 1835, illustrating the introduction of words.

one presented in Figure 58.

As the pupil acquired more sophistication, he graduated to the task of writing whole sentences of a size ordinarily used in social correspondence (see Figure 59).

Evidence of the results of this penmanship practice may be seen in some of the correspondence of the period. The letter in Figure 61 is attributed to Boki (Governor of Oahu) and witnessed by David Malo. This particular letter was written to the American Board and received in Boston on April 18, 1829. In it Boki complained that "Mr. Bingham is not good in his tabuing riding on the Sabbath and racing for money on other days."⁹ Here is not only an example of the handwriting of a chief of high rank who learned to write his language in a school initiated by the missionaries, but the rejection of certain aspects of the imported culture.

Still another example of the penmanship of the times comes from the pen of Kaahumanu in a letter written by her from Oahu, Hawaii, March 15, 1825. The flourishes under the signature were typical of handwriting styles popular at that period in history. This letter was written before the revision of the alphabet in 1826, and therefore reveals

⁹Boki, Governor of Oahu, July 31, 1828, to American Board of Commissioners for Foreign Missions (MS 207 in Houghton Library, Harvard University).

recdly from his own mouth. " her Bingham
 is not good in his labouring riding a horse
 sabbath and racing for money on
 other days.

signed Boki

Witness { David A. Hado
 Hanina

Boki.
 Recd at the room April 18

1829.

Fig. 61. Boki, letter to American Board, received
 April 18, 1829.

manau he i hookahi ka kakau
 manao i ke Atua i hookahi
 i ke kakau, manau palapala
 mai e hookaika oukou
 ia manou. Haavi, mai ka
 vi. hana i loko o ka palapala
 i pohe manou mi ka manou
 i kumu aroha iho oukou
 a pae. Iki atu ina ma ka
 i. Rakou. i ke alo o Iehova
 ma i ka lani manou, o ka
 u. Haku avari na kamaka
 ma ka ou a o ka poe mai
 u. Kaahumanu Ikiia
 ka oulo i ka poe mikiolani
 a pau

O Ka Kaahumanu

Fig. 62. Kaahumanu's signature from a letter dated Oahu, March 15, 1825.

certain of the spellings typical of the missionary era.

The various strokes taught as the basic components of the more intricate letters indicate that quills were used, thus revealing another facet in the investigation of handwriting. Part of the acquired skill in handling the writing instrument involved rendering variations in the line width. Penmanship, as taught to the Hawaiians in their rustic schools was a calligrapher's art, much prized as the mark of an educated man.

The samples of handwriting on the previous pages are even more remarkable when one considers that these letters were written by persons who had no history of alphabetic writing prior to their contact with the New England mission families. What motivation, and application of energy and patience, is represented by the markings on these scraps of paper! From such scraps, the history of writing in Hawaii has been pieced together and though many of the bits are missing, enough evidence remains from which patterns begin to emerge.

Learning the Alphabet

The letters of the new alphabet were presented in printed form in both the upper and lower case together with the name to be associated with each. In this manner <B, b> would be called [be], <d, d> [de], <H, h> [he], <K, k> [ke],

<L, l> [la], <M, m> [mu], <N, n> [nu], <P, p> [pi], <R, r> [ro], <T, t> [ti], <V, v> [vi], <W, w> [we] (see Figure 21, p. 225).¹⁰

The subsequent lessons involved placement of the various consonants in syllables with the vowels <a>, <e>, <i>, <o>, <u>. In this way the child would say [da], [de], [di], [do], [du], for example.¹¹

At every phase of the learning the pupil was encouraged to associate the written symbols with the sounds of his language. The vowel combinations called "diphthongal forms" by the missionaries were presented as <ae>, <ai>, <ao>, <au>, <ei>, <eu>, and <ou>.¹² The double vowel graphemes were introduced as <aa>, <ee>, <ii>, <oo>, <uu>, first in isolation and then with consonants, e.g., <laa>, <lee>, <lii>, <loo>, and <luu>.¹³ Subsequently, the diphthongal syllables were incorporated into the instruction. Following this sequence, words of one, two and three syllables with varying stress patterns were dealt with by the pupils. Using this phonic approach, the teachers

¹⁰Ibid., p. 2.

¹¹Chamberlain, Hawaiian Spelling Book, First Edition (Oahu: Mission Press, May, 1823), [partly handwritten and partly printed] (MS in Hawaiian Mission Children's Society Library, Honolulu), p. 1.

¹²Ibid., p. 2.

¹³Ibid., p. 3.

expected that their students would then be able to read the sentences in Table IV.¹⁴

There was an excitement across the Hawaiian Kingdom as the leaders of the nation and then the common people sat down in improvised school rooms and learned to read and write their language. Holmes did a drawing of one such school in Honolulu which gives a partial view of Mrs. Bingham's room, as the pupils were receiving instruction, while the baby lies sleeping by her side.

Examinations

As the system of schooling developed, examinations of the scholars were organized wherever large numbers could congregate. At times, as many as 500 pupils from the various smaller schools met in one place for their examinations. On one occasion, April 19, 1824, Bingham superintended the proceedings and began by introducing Kaahumanu.¹⁵ She rose and spelled the first word pronounced by one of the native Hawaiian instructors. As each class gave their exhibition, each individual spelled a word or two and sat down. Rehearsals were also performed by whole classes speaking in unison. Several exercises in composition were

¹⁴Ibid., p. 9.

¹⁵Chamberlain, Journal, op. cit., p. 39.

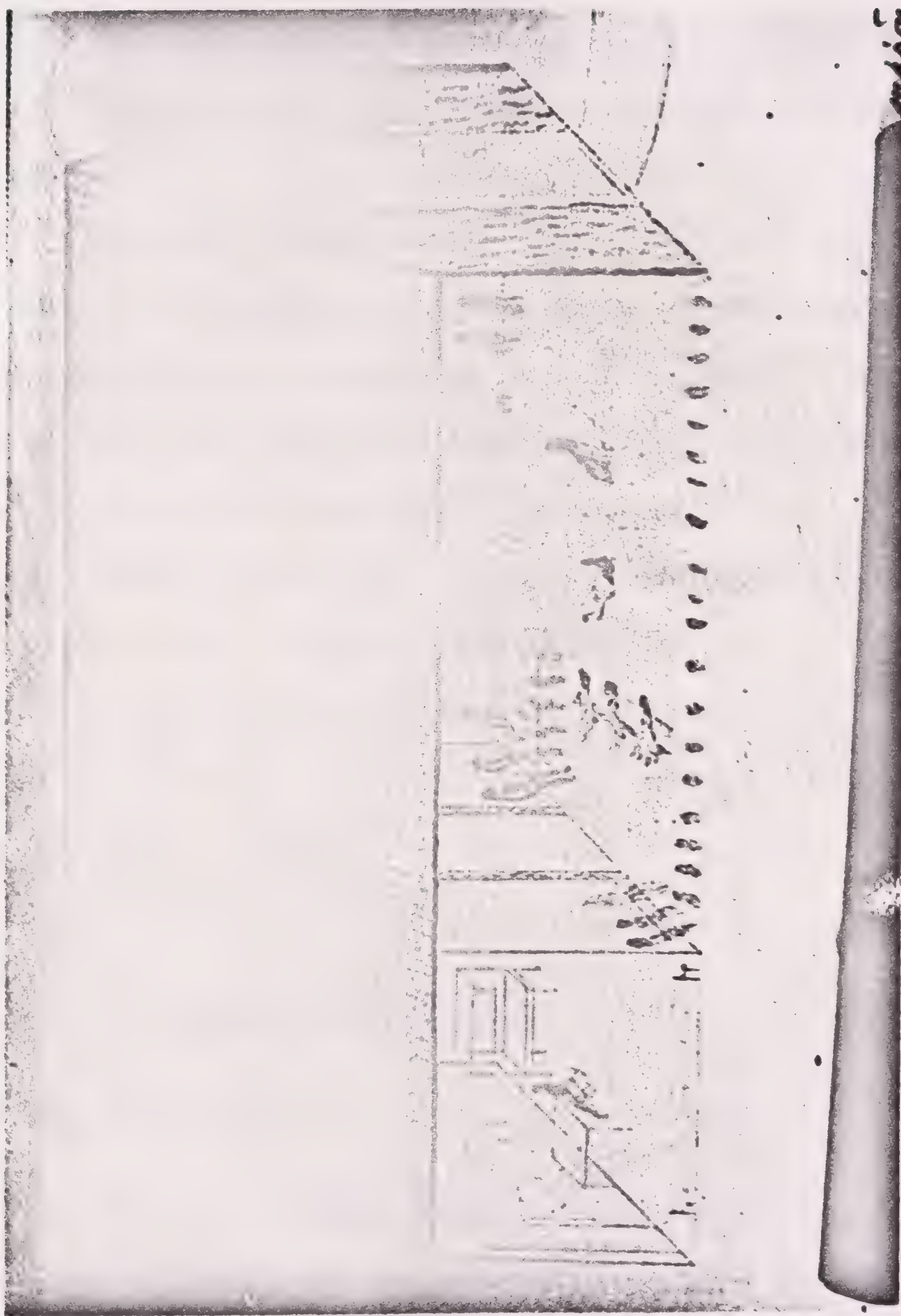


Fig. 63. The school house at Honolulu drawn by G. Holmes.

presented written on slates; the pupil stood, showed his slate, and read his composition aloud to the assembly. At this particular examination, Kaahumanu presented "a very good" composition.¹⁶

Some of the school compositions have been preserved. Among them is a brief composition written by Kauikeaouli at an examination of the schools on July 20, 1825. This was just a little over a month after the council of chiefs had agreed that he should succeed Liholiho as Kamehameha III, King of the Sandwich Islands. The following is a translation of the original composition.

Love to you all the company of missionaries.
This is communication to you. I encourage myself
by the word of God. I strengthen my kingdom by
the word of God. My mind is wholly devoted to
the Son of God. I catch the voice of the Son of
God, and I humble my body. My communication is
ended.¹⁷

Cultural Diffusion

Attitudes of the Hawaiians

A vital part of this whole story of the beginning of education in Hawaii involved the reactions of the people of the islands to the cultural diffusion taking place around them. Since the missionaries first came into contact with

¹⁶Ibid., p. 40.

¹⁷Ibid., p. 92.

the King and his principal chiefs and chiefesses, it was the alii class who were first taught the new skills of reading and writing. Through the reading of some of the letters available for study, the reactions of the leaders of the society become apparent. Kaumualii, Kaahumanu, and other chiefs of the kingdom asked the mission to send them "several hundred books, since they had lately learned to read, but had no books."¹⁸ John Adams on the island of Hawaii, also sent a letter to Oahu asking for books for his people and teachers, since many wished to become pupils.¹⁹ Kaahumanu, Kuhina nui (Prime Minister) wrote a letter to Mr. Evarts of the American Board expressing her deep thankfulness for the work of the missionaries in her land.

We return you all our love for your sending to us the company of missionaries, together with the good instruction. Pray yet to Jehovah that these islands of dark minds may quickly turn to God, that ye and we may have one thought towards God, that ye and we may have one mind. Do write us and strengthen us. Give us that which is right in your letter, that we and our teachers may hear. Great love to you all. May your eyes and ours greet each other in the presence of Jehovah at

¹⁸Hiram Bingham, Asa Thurston, and Elisha Loomis, "Sandwich Island Joint Letter," October 12, 1822, to American Board of Commissioners for Foreign Missions [handwritten original manuscript] (MS in Houghton Library, Harvard University).

¹⁹Journal of the Mission on Board the Brig Thaddeus, op. cit., p. 92.

the great last day of the Lord.²⁰

These words of appreciation were written by one of the most powerful leaders of the Kingdom who in a postscript to this letter asked that her word be seen by all the missionaries.

On November 8, 1823, a young chief of Kauai, Kealiiiahonui, who called himself the son of King Kaumualii of Kauai, wrote a letter to Jeremiah Evarts of Boston. This letter was later translated by Hiram Bingham and forwarded along with the original in Hawaiian to Evarts. This chief expressed his appreciation to Evarts for his kindness in sending the "teachers of learning". He also lamented that not all of the people on the island of Oahu were learning the "good written word of salvation". At the end of the letter Kealiiiahonui included the words "aroha nui roa oe" [much love to you], and signed his name. The handwriting on this letter attests to the fine quality of instruction received by this young man in the missionary school on Oahu in addition to supplying further evidence of the attitude toward the work of the missionaries (see Figures 64 and 65).²¹

²⁰Letter of Kaahumanu, Kuhina Nui o Hawaii, Oahu, March 15, 1825, to Mr. Evarts of the American Board of Commissioners For Foreign Missions (MS in Houghton Library, Harvard University).

²¹Letter of Kealiiiahonui, Oahu, November 8, 1823, to

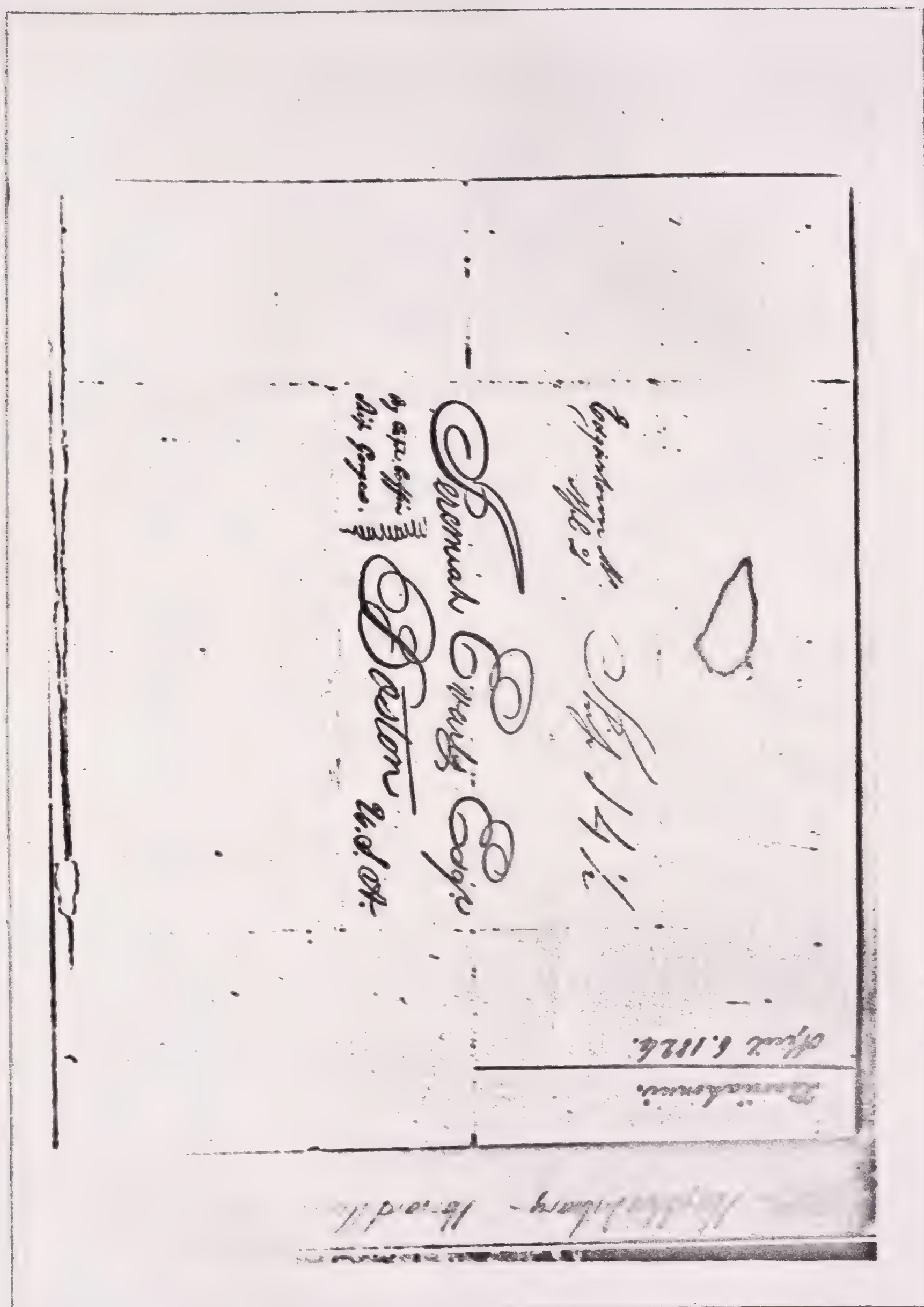


Fig. 64. Address on an envelope of letter written by Kealiihonui of Kauai, indicating that it was received in Boston April 6, 1824 and was carried on board the ship Ganges, commanded by Captain Coffin.

*

175

Oahu November 8 1823

Aroha to Mr. Every

Bia tau wahi ole

in ce. He aroha a kuni au in ce ilole
 mai kai mai i amaku nui Ikoheana
 anamai nui ikatunu as palapala
 ika ole a Iesu krait kamea enanu
 as ai oma kuni He nui roa kamai kai
 olakou ika hoo na au as mai i amatu.
 ika aro potoi ihi ti ai inuua ika lani
 ikahi mai kai roa. Nole ipau roa naka
 naka Oahu nui ikeas ika palapala
 mai kai ikele mamuri paha hiti mai
 ka wamai kai ipau roa ai o naka naka
 nui poe inuua potole ikeas ika ole

a Iesu krait Aroha nui roa ce
 He aroha nui

Fig. 65. Letter dated Oahu, 1823, written by Kealiihonui, who called himself the son of King Kaumualii of Kauai.

While there is ample evidence of acceptance of the cultural diffusion which was taking place in Hawaii, there were some dissenting voices heard from among others of the nation.

William Richards in a letter written from Lahaina, Island of Maui dated August 13, 1824, related a number of events pertinent to the question of acceptance.²² Some of the people of Lahaina had been in the habit of holding boisterous parties every night in the building used for the public worship service. Upon hearing of these difficulties Kaahumanu (Prime Minister) wrote a letter to the governor of the district on one of the slates used in the school. The text, according to Richards, follows:

Love to you Wahinepio. This is my communication to you. I have this day heard of the wickedness of our people in assembling every night for purposes of iniquity. They make a great noise even at midnight and thus disturb those who desire to sleep. They defile the house of God by devoting it to wicked purposes. I am very sorry for these things and think it the duty of us who are chiefs to give our people charge on this subject and unitedly to exert ourselves to stop this sinful practice and especially to be cautious respecting the house which we have built for

Mr. Jeremiah Evarts of the American Board of Commissioners for Foreign Missions (MS in Houghton Library, Harvard University).

²²Letter of William Richard, Lahaina, Maui, August 13, 1824, to Jeremiah Evarts, American Board of Commissioners for Foreign Missions (MS 127 in Houghton Library, Harvard University).

the praise of Jehovah. My communication is ended.²³

Kapiolani spoke to the chiefs of Lahaina concerning their neglect of the church established there. She told them she had built a church at "Kaavaloa" on Hawaii, asking them if they thought she had done right. They all answered that it was right.²⁴

I am a young chief. I am not a high chief. I live alone at Kaavaloa. Here at Lahaina are many chiefs. Here are the high chiefs, the aged chiefs, and yet I am ashamed of the house in which you meet to worship Jehovah. The mats are all old, rotten, and dirty. The doors are broken, and the hogs, goats, and fowls occupy it more than you do.²⁵

These were stern words for a young chiefess²⁶ to direct toward the chiefs of greater rank than hers. She chastised the chiefs further by telling them that they went to church to show off their kahilis, their numerous attendants, and fine clothes. Kapiolani climaxed her arguments by saying that she and they were but only human and as mortals, would pass from the scene. She then asked the rhetorical question, "Where will our kahilis and our attendants, and

²³Ibid., p. 3.

²⁴Ibid., p. 7.

²⁵Ibid.

²⁶Chiefess is the term used to designate a woman of chiefly rank.

our fine clothes be?"²⁷ Kapiolani also told Richards that some of the chiefs from around Lahaina would ask her where she was going and why, when she was on her way to visit the Richards, and that the chiefs would laugh at her because she would rather be with foreigners than with her own people.²⁸

While there were divergent opinions among the chiefs concerning the work of the missionaries, the evidence seems to weigh heavily on the side of interest and acceptance. As soon as the first sheet of the first spelling book was off the press, Governor John Adams from Hawaii enrolled as a pupil with a strong desire to learn to read and write his own language.²⁹ Kamamalu, the Queen of Kamehameha II, enrolled in one of the schools begun by the missionaries and in two months completed the sixteen pages of the spelling book and was, in this relatively short period of time, able to "write an intelligible note." It was said that she found pleasure in corresponding with Mrs. Bishop.³⁰

²⁷Letter of Mr. William Richards, August 13, 1824, op. cit., p. 7.

²⁸Ibid., p. 6.

²⁹Hiram Bingham, Asa Thurston, Levi Chamberlain and Elisha Loomis, "Joint Letter from the Sandwich Islands, February 1, 1822, to Jeremiah Evarts, corresponding secretary of the American Board of Commissioners for Foreign Missions (MS in Houghton Library, Harvard University), p. 8.

³⁰Ibid., p. 9.

It was Governor Cox who asked his sister Kaahumanu to join him in "turning to the new way pointed out by the missionaries, to encourage the establishment of schools, and to allow all of the people to be taught."³¹

Kaahumanu at first declined this entreaty, but was later to become a champion of the new order being introduced. It was a day for the mission family to remember when the King and his wife together with several chiefs turned their house into a school and began their studies in reading and writing.³² Even Kaahumanu was induced to lay aside her cards and take up a book. In this manner she first began to learn the alphabet of her language.³³

Added to the mission duties of preaching, teaching Sabbath schools, translating into Hawaiian, and teaching reading and writing, missionaries also had the tasks of superintending the growing numbers of schools springing up in every village and of training native Hawaiian teachers. Pupils began increasing at such a rate that the enrollments were outstripping both the supply of books and the available instructors. Buildings were not a problem at this early period, since private homes, churches, or groves of trees

³¹Ibid., p. 12.

³²Ibid.

³³Ibid., p. 13.

would suffice as school rooms.

As early as 1824 the training of native teachers in the art of writing had commenced. Chamberlain indicated that he had twelve pupils who attended instruction for teachers on two afternoons each week.³⁴ At another time the report in the Journal indicated that none of the pupils had arrived for their instruction probably because they had been too much diverted by the horse race which was being held on the same afternoon.³⁵ So it was that teacher training in Hawaii began in the early 1820's in the attempt to train native youths in the rudimentary arts of teaching others what they themselves had learned.

"Supper Table Practice"

The history of the development of a system of education for the Hawaiians in the 1820's, would not be complete without recording that the missionaries were not too proud to become pupils themselves when necessity demanded it. In order to facilitate their learning of conversational Hawaiian, the mission families engaged in "supper table practice," one member saying a sentence in Hawaiian and the

³⁴Chamberlain Journal (Hawaiian Mission Children's Society Library, Honolulu, March 24, 1824), p. 30.

³⁵Ibid., p. 24.

others repeating it. While Chamberlain and the other missionaries were applying themselves to the task of reading, writing, and speaking Hawaiian as a second language, the Hawaiians were learning to read and write their own language using the newly adapted alphabet.³⁶

Educating Heathen Children

On Thursday, May 19, 1825, a meeting of the mission on Oahu "resolved that a committee of three be appointed to report upon the expediency of receiving and educating heathen children in the different families of the mission in compliance with the wishes and appropriations of benevolent individuals in America."³⁷ Some members of the "mission family" thought that one way in which the education of Hawaiian youths could be furthered would be to invite certain ones to live in with the different missionary families. The funds for such a program were supplied by various individuals in the United States. In May of 1825, the missionaries submitted a report summarizing these efforts. It was estimated that during the first two years of the mission in Hawaii, twenty children were received and instructed in the mission families. The expenses of such a

³⁶Chamberlain Journal, op. cit., p. 18.

³⁷Ibid.

program were defrayed by the liberal contributions of foreigners at the islands and by the special patronage of King Kaumualii of Kauai.³⁸ At the time of the report some of this number were employed as teachers, some had died, some had "deserted", and some had been dismissed. One child remained who was first given the name of Henry Martyn and was supported by a Society of Young Ladies at Nantucket. This boy was later called Abner Morse, at the request of his benevolent society.

Very few native girls remained very long under the missionary roof, nor did they give any evidence of being benefitted by the experience.³⁹ An exception to this was Delia, who later became the wife of Thomas Hopu. In all, about thirty-five children were supported and educated in the families of the mission during the time this program was in effect (five years). This foster home program initiated in Hawaii was rather typical of the New England manner of helping a child; it was the way in which Henry Opukahaia, George Kaumualii, and Thomas Hopu had been treated during their stay in New England.

The missionary estimate of the worth of such a program for the children of Hawaii was modest in its wording. In

³⁸Ibid., p. 64.

³⁹Ibid.

this learning-by-doing situation, the missionary families had increased their own opportunities to practice Hawaiian, and learn something about the cultural heritage of the Hawaiians. On the other hand, the native children had the opportunity of individualized teaching of reading, writing and the principles of Christianity. Some cultural diffusion must have taken place in two directions at once.

The cultural differences between the native Hawaiian child and the members of his foster home must have been great. This cultural gap may account for the fact that some of the Hawaiian children could not adapt and simply ran back to the grass hut and a more familiar and comfortable environment. It is not the goal of this history to pass judgment on the foster home plan as practiced by the New Englanders in Hawaii, but only to report its development as a facet of the history of education in the Islands during the period.

A perusal of enrollment figures kept during these early years of the mission service may give some idea of the magnitude of the total educational effort of the missionaries. Chamberlain commented in July of 1825, that there were some 2,000 scholars in the division called Honolulu,⁴⁰ and that in two days on Maui some 2424 pupils

⁴⁰Ibid., p. 19.

were given their examinations in a two-day period.⁴¹ From the island of Maui it was reported in 1828 that there were 1318 scholars in Lahaina, and 1106 in three other districts. With this great number of students, it is no wonder that books, and teachers, and schoolrooms were scarce items during these years of educational pioneering.

⁴¹Ibid.

SUMMARY

Discussion of The Hypotheses

It is now appropriate to discuss briefly the several hypotheses advanced in the introduction of this study with reference to the major conclusions drawn from the analyses of data.

Alphabetic Invention

The Hawaiians did not progress beyond the picto-semantic stage of graphic representation culminating in the invention of an alphabetic system of writing. The evidence available to this writer supports this hypothesis.

Antecedents to Change

Both primary and secondary sources support the hypothesis that voyages to Hawaii before 1820, cultural fatigue in Hawaii before the arrival of the missionaries, and the role of Henry Opukahaia constitute interrelated antecedents to the cultural diffusion which followed.

Missionary Influence

Missionary influence and Christian doctrine took the place of the partially abandoned pre-missionary religion

of the people. The missionaries' introduction of the alphabet made it possible for Hawaiians to print, write, and read their own language. As missionaries became confidants of kings, advisors to chiefs, teachers, superintendents of the school systems on the various islands, and mediators between the leaders of the Hawaiian Kingdom and the outside world; their influence pervaded the entire culture.

Acceptance-Rejection

As Pike has indicated, a practical orthography should be acceptable to the people of the region where it is to be introduced. Personal letters written by Hawaiians learning to read and write their language, addressed to the secretary of the American Board of Commissioners for Foreign Missions, constitute the basis for this writer's stand relative to this particular hypothesis. The acceptance of the alphabet by the people was whole-hearted. It is true, that at first, the high chiefs wished to limit educational opportunity to their social class alone. Through the insistence and persistence of the missionaries, however, equal educational opportunity became the stated goal of the mission. It is interesting to note that the decree declaring the equal educational opportunity philosophy was issued by the government with the approbation

of the high chiefs of the Kingdom.

Mass Education

The first attempt at mass education was stimulated by the desire on the part of Hawaiians to read and write. This desire was a direct outgrowth of interest evoked by the introduction of the alphabet and Christian doctrine.

Acculturation

Without imprints covering a wide range of the worlds' knowledge, acculturation could not have occurred as rapidly as it did nor would this process have affected so many phases of the culture. The following suggestions indicate some of the directions which further research may take. It is hoped that the bibliography, together with the researcher's notes deposited in the Pacific and Hawaiian Collection at the University of Hawaii, may stimulate continued research in this area of Hawaiiana.

Suggestions for Further Research

1. Study the logs of voyages to Hawaii before 1820, in order to relate in more detail, the nature and extent of the cultural diffusion stimulated by these early visitors to the Hawaiian Islands.

2. The history of the further development of the

educational system of Hawaii during missionary times could be written, based on manuscripts in Houghton Library, Harvard University and in the libraries of the Hawaiian Historical Society and the Hawaiian Mission Children's Society in Honolulu.

3. A complete history of the work of the London Missionary Society in Tahiti would serve to highlight the singular contributions of William Ellis to the introduction of alphabets in Tahiti and Hawaii.

4. A documented account of the voyage of Auna from Tahiti to Hawaii might prove to be a fitting prelude to the missionary period in the Hawaiian Islands. The extent of the role played by the Tahitians who arrived with Ellis, has not been made the subject of any concerted research, so far as this writer knows.

5. A more extensive study of cultural diffusion in Hawaii might be initiated by an analysis of the types of loan words introduced into the Hawaiian language.

6. A comparative fit ratio study based on an analysis of the personal correspondence of the missionaries might prove rewarding. Such letters and journals are available to the researcher in Houghton Library at Harvard University.

7. A study of the successive adaptations of an orthography to Hawaiian based on analyses suggested from the fields of ethno-, socio-, and psycho-linguistics, would

constitute a unique contribution to the field.

8. A comprehensive study of linguistic change based on a phonemic-graphemic analysis of the vocabularies from various periods of Hawaiian history should receive more serious attention, since the subject has only been mentioned in this work.

9. A comparative study of the development of written forms in Polynesia, Micronesia, and Melanesia might serve to extend the scope of our understanding of this subject.

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